

For the people of Hewlett-Packard

May-June 1993

MEASURE

Facing
change

Advanced Systems
Manufacturing Division
Howard Cabezas

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us measure MEASURE



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On the cover: Howard Cabezas was angry when he heard that 170 jobs, including his, were moving out of state. How did Howard, his 169 co-workers and HP handle the change? See page 3. Photo by Marc Longwood.

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The move from Roseville, California, to Boise, Idaho, has been a happy one for Juana, Cameron and Brad Bowden.

The pain (and gain) of

Facing change

What happens when 170 people learn that their jobs are going away? Employees in Roseville, California, tell a story of transition.

By Shirley Gilbert

Juana Bowden remembers the shock she felt when she first heard the news in a coffee meeting last June: Her production job on the printed circuit assembly line in Roseville, California, was going away and the surface-mount line was moving to Fort Collins, Colorado.

"Oh no!" she thought. "What do I do now? Where do I go? Where will we live?" There was a huge lump of worry in Juana's throat.

Juana wasn't alone.

One hundred and seventy Networked Computer Manufacturing Operation (NCMO) employees who heard the news together that morning all felt varying degrees of shock and concern.

Most knew that the Computer Systems Organization's Computer Manufacturing management was considering

consolidating printed-circuit-assembly (PCA) activities in a few spots in the company. PCA workers in NCMO in Roseville just knew they would be the ones to win out.

The changes that actually took place in the lives of the 170 Roseville employees because of that announcement were probably more far-reaching than even Juana imagined on that troubling summer morning.

Some of her co-workers would move to places far away from Roseville—even as far away as Alaska. Others would leave the company and pursue interesting new careers such as raising Arabian thoroughbreds. A few would get married. One would go

Not all the stories have happy endings; not all the experiences were pleasant.

through a separation. Some would be promoted; most made lateral moves; a few chose to take a step down or learn new skills.

As for Juana, she and her husband, Brad, who worked with Juana in NCMO on printed-circuit assemblies, relocated to HP in Boise, Idaho, and are working on printers and disk drives. They have a new baby, a new home and a new lifestyle in a place they like.

Juana's story is just one of 170 individual stories about a period of transition in Roseville.

Not all the stories have happy endings; not all the experiences were

pleasant. For some, the road was bumpy, uneven and disappointing. For others, it was uplifting, smooth,

It was hard for NCMO's employees to let go. "Why us?" they asked.

opportunity-filled—even an adventure. For still others, the story isn't over yet: The Roseville transition won't be complete for several months.

This article tells the story of how HP employees in one entity in Roseville faced a time of upheaval. But it also addresses the larger issue of change within HP.

Today's competitive business environment dictates that HP people change, make business accommodations and adjust every day.

For most of us, it isn't easy.

Why is that? Why is change so difficult and painful? Bill Bridges, management consultant and expert on the subject of change, points out that it isn't the practical change itself that people resist. It's the psychological notion of transition, the act of changing ourselves.

Bill adds that, at a psychological level, in almost all cases of change—good or bad, small or large—some assumptions we've made about tomorrow are not valid.

And we need to go through a period of transition to let go of those assumptions and get on with life.

Bill says there's a three-stage journey we all go through when we travel through transition country. First, there's an ending stage that allows us

to let go of the old world. Next, we go through a "neutral zone" when we're between the old and new. And finally, we get to our final destination: a new beginning.

It was hard for NCMO's PCA employees to let go. They railed against the decision. "Why us?" they asked.

There are two types of printed-circuit-assembly work in Roseville's NCMO. One involves the older technology of connecting components onto boards through holes in the boards (through-hole assembly). The more modern technology centers on mounting components onto the boards (surface mount).

Use of the older through-hole technology has decreased during the last several years, but the newer surface-mount process will be around in HP locations for the foreseeable future.

Where to put these locations was not an easy decision, affirms Wade Clowes, operations manager of NCMO in Roseville.

"It was a hard call," he says. "In computer manufacturing we're trying to bring about the concept of a global factory where each site specializes in some targeted activities. That way

"It was a hard call... we're trying to (create) ...a global factory..."

we can allow entities to focus on separate elements of the value chain and achieve some money-saving economies of scale."



PATRICIA BARRY/LEVY/LIAISON INTERNATIONAL

"I thought of it as a wonderful adventure," says Dottie Lefler, who jumped at the chance to relocate to Fort Collins, Colorado.

Because most of CSO's PCA activity is in Colorado, it made sense to base the surface-mount line there, leaving Roseville to focus on developing a "solution center" for HP's order-fulfillment program and other manufacturing priorities. The through-hole work is moving to HP's printed-circuit-assembly center in Rohnert Park, California.

Once HP made the decision to consolidate, NCMO formed a transition-management team, headed by PCA production manager Mike Nickey.

The team established a set of objectives for the transition; the key one was to balance people's preferences for where they wanted to live and work with HP's business needs.

Using information from earlier NCMO redeployments and consolida-

tions, the team rolled up its sleeves and put together an innovative menu of services to guide employees and the PCA business through the redeployment process.

The menu included sending team members out to HP hiring locations in the Pacific Northwest states (Washington, Idaho, Oregon) and Colorado to bring back a range of information—even including the prices of groceries—on what the living conditions and lifestyles were like for employees on other sites. These "campus managers" (in the tradition of HP's college campus recruiters) shared this information with employees in a variety of communication sessions.

NCMO set up an Employment Opportunity Center to allow job-seekers to scroll through LOIS (Local Openings Information System)—HP's

electronic job-posting system—and read through binders of information about other locations and HP's relocation policies.

The operation held resumé-writing classes and interviewing workshops. Managers gave employees time to learn new skills and upgrade old ones.

Teams of hiring supervisors came from a number of HP sites to conduct job fairs for interested people and interview candidates in Roseville. A few supervisors made job offers right on the spot.

Supervisors attended workshops on the art of managing change so they could help employees and themselves travel as painlessly as possible through the transition.

Employees in other HP Roseville entities could accept relocation

offers, thereby creating local job openings for some NCMO people.

The transition management team said that communication was the key to the success of the redeployment. There were constant updates and information sessions on the status of the transition. A publication called the *Transition Times* helped keep people informed as they went through the change process.

Despite these helpful programs, each employee had to make a soul-

"It would be hard on my family if we moved. I knew I couldn't do it."

searching personal decision about what the future would be like.

"Should I stay in Roseville or go to another HP site?" was one of the most burning questions. An early survey revealed that most employees preferred to remain in Roseville. Those who believed they couldn't move didn't wish to appear inflexible.

Shirley Stout, test and repair operator on the line, had been to HP's Boise, Idaho, and Fort Collins and Loveland, Colorado, sites in the course of her HP career.

"They were nice," says Shirley, "but I have two daughters here, and my mother and my husband's parents live in Northern California. It would be hard on my family if we moved. I knew I just couldn't do it."

Shirley found a job in Roseville as a material handler and is learning new

skills she believes will stand her in good stead in the future.

On the other hand, Dotty Lefler, who hand-loaded PC boards, jumped at the chance to follow her job to Fort Collins. (About 40 people accepted HP's offer to relocate.)

Dotty, a single parent, and her 20-year-old son have settled into a new life just eight miles from HP's plant. "I thought of it as a wonderful adventure," says Dotty.

Another difficult decision: "Should I leave HP?" That was a tough one for Vonda Bald Eagle.

Vonda had been with HP for more than 10 years and loved her job on the PCA line. She resented the decision to move the line to Colorado. "We put out a lot of quality work and did a top-notch job. I really felt as if we were being flushed down the toilet when I heard the news."

She decided to accept the Voluntary Severance Incentive (VSI) and leave the company to turn an avocation into a full-time job. Vonda raises

"I really felt as if we were being flushed down the toilet..."

thoroughbred Arabian horses on her Flying Eagle Ranch north of the Roseville site.

Vonda's happy with her choice but misses her job and the people she worked with.

Other employees were happy to accept VSI. Deb Serene, a material handler, and Boyd Belmore, a PCA

employee, took the offer, got married and moved to Petersburg, Alaska, an island between Ketchikan and Juneau.

Most people have jobs today and benefitted from the transition.

Boyd joined the Forest Service and Deb is fulfilling a lifelong dream of going to college.

The transition was especially difficult for supervisors.

Howard Cabezas, a line supervisor who's been with HP for 26 years, admits he was angry when he heard the news. "Hey, I thought, 'we're doing such a great job. Why are they messing with us?' I was really mad!"

He was most concerned about his own people. Most of their jobs were entry-level and he felt it would be hard for them to find new spots within HP.

Howard used up boxes of tissues getting his employees through a traumatic time. Many became very negative about HP during the process. However, almost all of them have new jobs today and, adds Howard, most have benefitted from the transition.

Howard himself recently found a new job in purchasing on the Roseville site. He was worried about his chances of landing a position and now is relieved that the transition is over for him.

Now that the redeployment is in its final stages, what worked and didn't work in the transition?



Vonda Bald Eagle accepted a Voluntary Severance Incentive and now raises Arabian horses at her Flying Eagle Ranch.

The transition management team surveyed the 170 affected employees and discovered that their efforts really paid off. The people gave the efforts an overall satisfaction score of 82 percent. People especially appreciated the communication efforts made by NCMO management and the caring support they got from their supervisors and the transition team.

They didn't like a few aspects of the Employee Job Request process: they found LOIS a bit confusing and not up-to-date, and wished hiring managers would get back to them sooner. Respondents also felt that the issue of stress should have been addressed more effectively and

beyond the workshops offered to get them through the rough spots.

Overall, they gave the management team high marks for supporting them during a difficult time.

The ending to the PCA redeployment story isn't over yet. But most people in the PCA department have started their new lives having safely crossed the neutral zone to a new beginning.

What did they learn? Those who came through the change with flying colors advise HP employees to keep their skills current, think of change as an opportunity and "take risks."

Alan Hill got married and transferred to Fort Collins. Marlene Romero left the company to go on a trip to Alaska and then return to

Roseville to retire. Kathy Mullis now works in the Support Materials Organization in Roseville as a telemarketer—she got a promotion.

There are 170 stories of change in the PCA redeployment—each one unique and special. Says one former PCA employee, "Use change to follow your dreams." **M**

(Shirley Gilbert is the communications manager for HP's Computer Systems Organization.—Editor)

With antitrust laws loosened, U.S. semiconductor makers join forces with the government at SEMATECH to strengthen their industry and U.S. competitiveness.



Paul Aum (left), an HP assignee at SEMATECH in Austin, Texas, is a heavy user of its HP parametric test equipment. HP Austin's Bill Verzi set up the lab.

Taking off the shackles

By Betty Gerard

AUSTIN, Texas—Three years ago, Gary Castleman left the green environs of Corvallis, Oregon, to help blaze a high-tech trail in Texas.

He became one of Hewlett-Packard's assignees at SEMATECH, a unique partnership of the U.S. government and 10 of the largest semiconductor manufacturers, aimed at regaining competitive ground which had been lost to Japan.

SEMATECH is making history as the country's most successful such government-industry venture. It's serious business: the U.S. government, through the Department of Defense, annually funds \$100 million, matched by another \$100 million in total from member companies, paid based on their relative semiconductor sales.

Other members are Advanced Micro Devices, AT&T, Digital Equipment Corp., Intel, IBM, Motorola, National Semiconductor, NCR Corp. (now owned by AT&T), Rockwell International and Texas Instruments. Together, SEMATECH members make 80 percent of U.S. semiconductors.

As a SEMATECH member, HP is something of a hybrid. It is one of the smaller members, based on the total amount of semiconductors it manufactures, and is a customer of other members. But HP is a leader in R&D capability.

Changes in U.S. antitrust laws in 1984 opened the way to information sharing at the R&D and manufacturing level, although not in sales.

HP has been a strong supporter of the concept of such cooperation, but several earlier tries foundered before

the successful launch of SEMATECH (SEmiconductor MANufacturing TECHnology) in 1987.

The urgency of such an effort was clear from the declining U.S. share of the global market for the integrated circuits that are the heart of the electronics industry—the country's largest basic industry. The real exposure came in the sales of equipment used to manufacture ICs; in the early 1980s, the United States steadily lost market share to Japan. This decline reached its bottom in 1989. By 1991, the United States regained the lead.

SEMATECH helped that turnaround by working with U.S. vendors to improve the quality of the complex equipment used to make chips. Advances in equipment must be made in tandem with technology gains in chips, which continue to become

**How
do you
measure
MEASURE?**



smaller and more densely packed with circuitry.

Within HP, the Circuit Technology Group's Integrated Circuit Business Division (ICBD) has the lead for the relationship with SEMATECH. Fred Schwettmann, vice president and CTG general manager, is on the SEMATECH board. George Bodway, a pioneer in HP's IC activities and one of the original SEMATECH founders, is his alternate. ICBD manufactures chips in Corvallis and Fort Collins, Colorado; does packaging in Singapore; and has a design center in Santa Clara and an advanced R&D lab in Palo Alto, California. Other SEMATECH users are the Microwave Technology Division in Santa Rosa, California, and Components Group divisions.

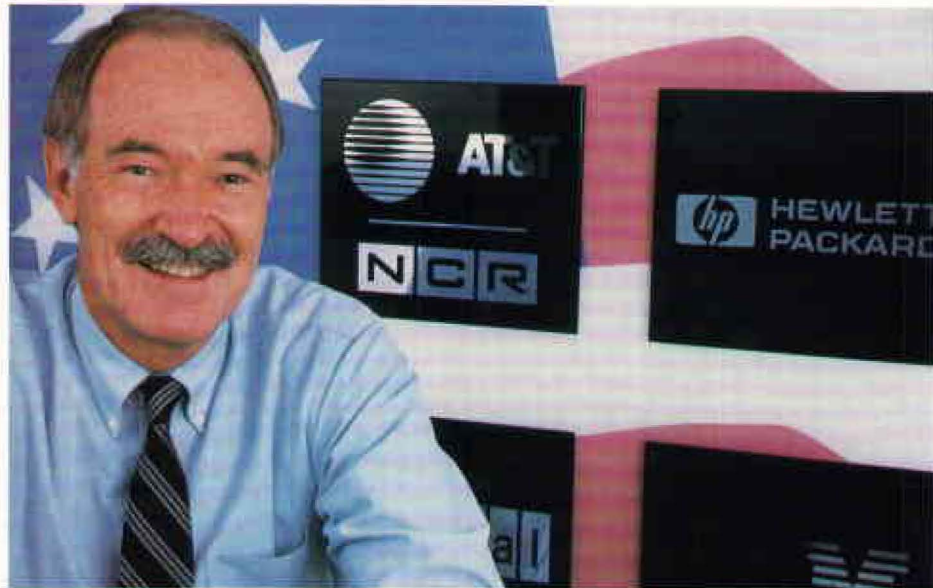
Dragan Ilic and Shang-Yi Chiang, both of CTG, alternate on the body that advises the SEMATECH board of directors on high-level technology matters. Until 10 years ago, Shang-Yi explains, each semiconductor company developed its own equipment. "Then we realized we're not equipment makers, any more than a carpenter tries to make his own tools."

Unlike Japanese companies—which develop production processes

"...fierce industry competitors are working together at SEMATECH."

along with chip design and often have a subsidiary to make equipment—most U.S. semiconductor companies buy equipment from vendors.

Last December, SEMATECH made a breakthrough by using American process tools only to make 0.35-micron



JEAN DORNHEIM

Bill Spencer, SEMATECH CEO, is pictured in front of a hallway design with logos of the 10 member companies. Together, they make 80 percent of U.S. semiconductors.

ICs, which contain electrical devices so small that 72,500 of them in a row would measure just one inch long. That signified U.S. tool quality was world-class. It was a landmark goal that had been set for SEMATECH's first five years of operation.

Bill Spencer, the former Xerox executive who is SEMATECH's CEO, changed its emphasis from industry advocacy to serving the needs of member companies. He has set a new five-year goal for improving design tools and materials at the front end of the process, and for programmable test and packaging at the back end. These steps will further strengthen American leadership in software and systems.

"We've hit a time when the consensus is that we have to concentrate on competitive issues," he says. "That's why fierce industry competitors are working together at SEMATECH."

The consortium's track record to date has won public praise from the

Clinton Administration, which sees it as a model for such cooperation.

Chief Operating Officer Bill George points out that for the first time, SEMATECH's top 10 projects reflect 80 percent of every member company's own top 10 projects.

"We're focused on doing the things our member companies can derive value from," he says. "Each one has proprietary technology it won't share—but few have the income to invest in developing every skill they need to be world-class."

When Gary Castleman arrived in Austin in 1990, SEMATECH had just added to its facility a state-of-the-art wafer fab of special interest to HP. ICBD was about to make a major investment in a new wafer fab in Corvallis. For his first year and a half at SEMATECH, Gary managed its wafer fab (used for tryouts of equipment and chip designs).

It has been said that HP avoided a million dollars in costs in Corvallis by using the SEMATECH lab as a model.

Shackles

That's a flat dollar figure Fred Schwettmann prefers not to use because he's sure it's actually too low.

"We hadn't built a clean room at HP for 10 years," Fred says. "SEMATECH gave us a tremendous number of opportunities to learn what was new and reliable."

Fred feels it's not easy to quantify a number of other benefits from taking part in SEMATECH, such as the chance for HP people to interact informally with their peers from other companies. HP now sends up to six employees at a time to Austin on two-year assignments. (Half of the 600-plus people who work at SEMATECH are assignees on rotation.)

At the present time the HP assignees, in addition to Gary, are Jim Jurgens, Paul Aum, Randy Gray and Jerry Gilliland. Jim, who has been a controller and manufacturing manager in Corvallis, is the senior assignee with responsibility for the recruiting and well-being of assignees. In addition,

"SEMATECH is a big beast. It's hard to get your arms around it."

tion, he manages the Competitive Analysis Group at SEMATECH.

Assignees typically come from HP divisions but Bill Verzi was from the field. A systems engineer with special knowledge of HP's parametric test line, he came in to set up a test floor.

Other HP people serve on each of 16 technology-focused committees.

SEMATECH executives give HP high marks for the caliber of its assignees and their savvy placement in projects of special usefulness to the



At ICBD-Fort Collins in Colorado, Jim Roland (left), HP's SEMATECH technology transfer manager, talks with Gary Scher about his widely used "Wafer Sleuth."

company. The HP approach and collegial style fit well in a mix of assignees from many company cultures.

For example, SEMATECH now uses a method that Jim McDaniel, former technology transfer manager, introduced to track HP's return on investment in projects.

HP has made other tangible contributions to SEMATECH:

- The ICBD-Fort Collins lab rigged its own computerized system for tracking wafers through production to spot where yield losses and variations occur, but couldn't interest an equipment vendor. HP turned over the prototype system to SEMATECH, which refined it and got the "Wafer Sleuth" made commercially.

- Paul Aum is an assignee from CTG's group R&D lab under Yoshio Nishi, a renowned IC expert. Paul received SEMATECH's Eagle Award for exceptional achievement for his test structure that identifies problem areas in mask designs due to plasma damage.

- On a contract from SEMATECH, Yoshio's lab developed a test mask

that groups some of the processing steps in many test structures to pinpoint a failure more easily.

Jim Roland at ICBD-Fort Collins is responsible for technology transfer from SEMATECH to HP, which means keeping in close touch with needs. "SEMATECH is a big beast," he admits. "It's hard to get your arms around it." There's an outpouring of technical reports, reinforced by road shows going out from Austin. Assignee Randy Gray, another Coloradan, is currently on the road demonstrating Total Productive Maintenance to check tools rigorously for possible flaws.

While Gary Castleman is still nostalgic about the Pacific Northwest, he has found being at SEMATECH "the experience of a lifetime." He's been impressed with the cooperation and tremendous amount of knowledge he's found there.

"With the shackles taken off so we can work together legally," he says, "we can compete with anyone in the world." **M**



Nick Rossiter (right) greets Science Contest winner Aleksander Sergeevich Dmitriev outside St. Basil's Cathedral.

New frontiers: HP in Russia

Dave Packard's vision of a long-term presence in the former Soviet Union is becoming real today.

By Mary Weed

Irish-born Nick Rossiter thought he had heard every tall tale there was after completing an HP sales stint in Saudi Arabia. Then he took over the No. 1 job for HP in Russia.

He certainly wasn't expecting to get letters from pregnant Russian women offering to name their yet-to-be-born children "Hewlett Packard" if the company would donate \$50,000 to the children's education.

"Business is very different in a country that is undergoing so many transitions all at once," Nick says.

The former Soviet Union now is known as the Commonwealth of Independent States or CIS, including the republics of Russia, Belarus, Ukraine and Kazakhstan, among others. In such a volatile political and economic environment, HP has had to adapt its business initiatives. Two ideas that already have been welcomed in the

region are the Packard Initiative and the HP Science Contest. Both are part of HP's plan to develop "brainware" activities to the mutual benefit of CIS citizens and HP.

When Dave Packard first visited the former USSR in 1959, he saw the need for a long-term presence in a country where similarities between Americans and Russians were so great. Through the years, HP sold medical and analytical equipment even when the U.S. government set strict regulations on the sale of strategic computer technology in the early 1980s.

Today, Dave's vision is being realized in the form of the Packard Initiative. The project has a two-fold purpose: to create a pool of trained engineers from selected partner

organizations that will assist HP's business-development activities in Russia and to gain access to scientific talent that could yield breakthrough technologies within HP.

Russia and the entire CIS offer an extraordinary pool of engineering and scientific talent. By actively developing links between the HP scientific community and potential sources of technology in the CIS, the company is creating the momentum and the critical mass necessary for a fruitful partnership and contacts with leading Russian scientists and researchers.

The Packard Initiative came about when the HP management team started focusing on ways to build a strong HP presence in Russia.

Preparations for selecting the first group of Russian engineers started when Herb Blomquist, director of the International Contract Programming group, visited St. Petersburg in the summer of 1992 with Ruvim Braude, a Russian emigré who works in HP's Product Processes Organization.

By the fall of '92, Vivek Pendharkar, manager for the Packard Initiative, and Thomas Kast, ICP European manager,

Russian expertise could greatly improve the quality of HP products.

had spent several weeks in Russia interviewing potential partner organizations and selecting the engineers who would participate in the program.

By December, eight Russian engineers from two organizations—SFINKS, which is located in St.

Petersburg, and INTERSOFT, which is in Obninsk near Moscow—arrived at HP. Both organizations are small, private companies founded by entrepreneurs from the former defense and nuclear industries.

Nick's team in Russia, with Slava Voropaev as the business-development manager, worked closely with the ICP team to select the best partner organizations. They selected partners from targeted industries where HP equipment is likely to be used for projects.

"If we have these engineers trained on HP systems," Vivek explains, "they will be the best candidates to do the job and they will promote our products for future projects. Creating such a pool of engineers will give HP a competitive advantage."

Says Herb Blomquist, "The ICP program offers a rare opportunity for these engineers to become familiar with HP technology and to observe how we use that technology to respond to market-driven conditions. The practical experience they will gain in learning to interact with HP people will be a real differentiator for HP when they return to Russia."

The engineers received one month of classroom training in HP-UX and Windows. Next is the hands-on experience: Half of them are training on HP-UX projects in the Common Systems Lab in Cupertino, while the other four are part of a "picture-programming" project at HP Labs.

The hope is that the program will blossom into some real breakthrough technologies for HP. Russian expertise, such as in fundamental physics, could greatly improve the quality of HP inkjet printers or other HP products. In this way, Russians can apply their knowledge to product science rather than to product development.

Dave Packard is moving closer to realizing his dream of a "trained pool of talent" in Russia. As he said recently, "We'd like to see at least 100 to 200 people trained on HP technology available in Russia."

The program also helps equip the participants' labs in Russia with HP 9000 computers, HP Vectra PCs and laser printers. HP also will provide

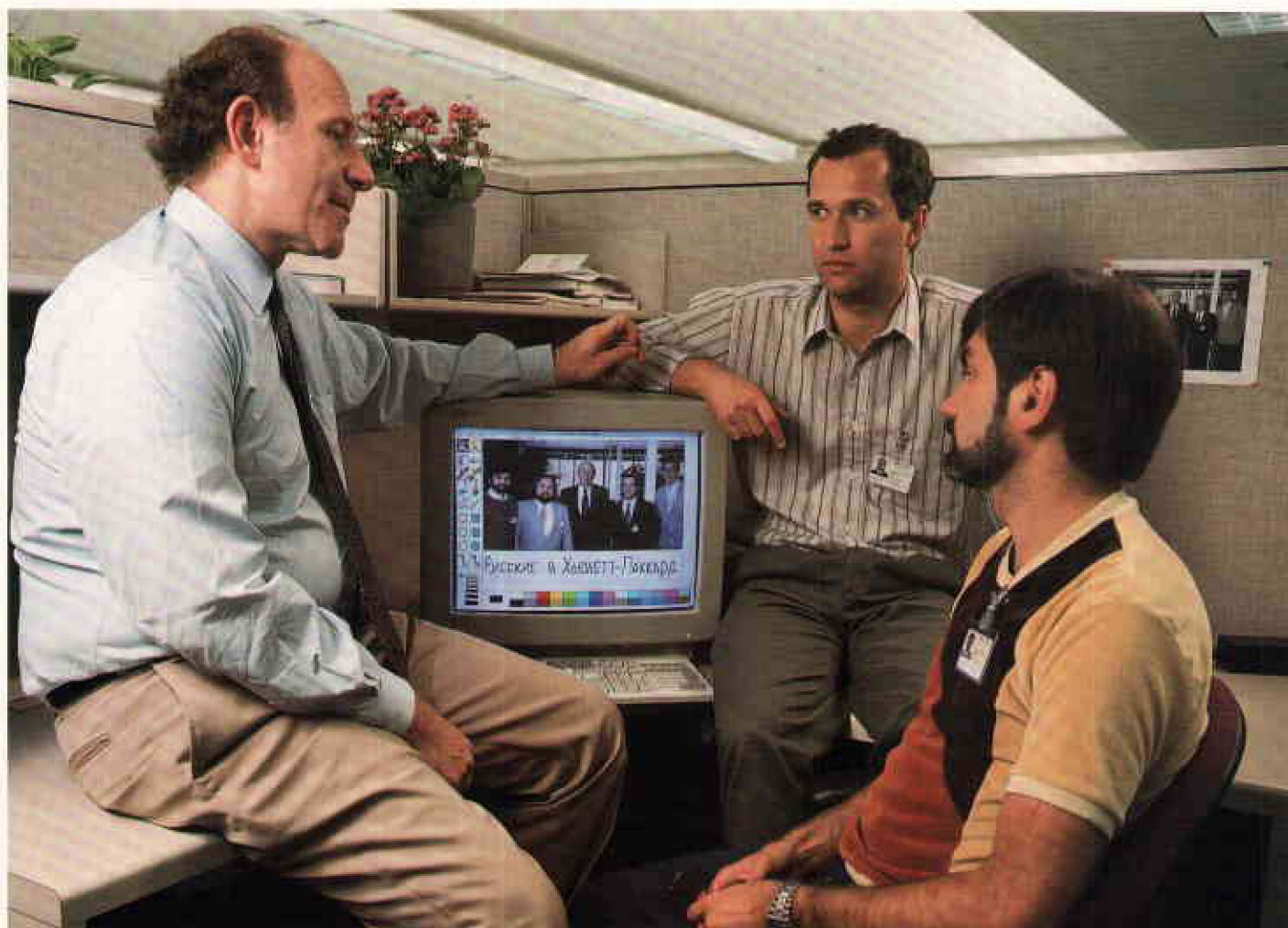
"We have more sophisticated software today in Russia," a Russian says.

faxes, telephones and office equipment needed to train others, and for eventual projects for HP's Moscow office.

While Russia and other CIS states badly need modern computer equipment, one of the scientists interviewed seemed surprised that there was not more advanced software at some of the sites they visited. "We have more sophisticated software today in Russia," noted one Russian. "I expected to see the frontier of new technology, but I see here traditional tools." Vivek responded that, "Our labs are interested in learning from you also."

In the future, ICP is looking to Novosibirsk, Siberia, where the Russian Academy of Science is located, as well as to Ukraine, where HP set up an office in the capital, Kiev. "This is the beginning of a new and exciting opportunity for HP," Vivek says.

On a separate front, Roland Mattis, industrial planning manager for HP in Europe, based in Geneva, is working



At HP Labs, Vice President Joel Birnbaum (left) discusses a project with Russian engineers Sergei Simonov and Sergey Buleev.

closely with Bristol Labs and other HP people across Europe and Russia to come up with an innovative way of mining “nuggets of scientific know-how” in the CIS. The result is the HP Science Contest.

By advertising the Science Contest in national newspapers throughout Russia and the CIS, HP discovered some of the most gifted scientists for new research projects. “We were, in effect, flooded by research proposals from such remote places as Siberia, Kazakhstan and Armenia,” Roland says. “The quality was so surprisingly high that it made the choice of the best partners difficult.”

HP based the contest on a pattern-recognition project that is part of HP’s ongoing research into “information appliances.” The aim is to produce wireless communicators capable of alternative data entry.

HP selected 23 people to work on a contract basis for a number of leading-edge research projects. The primary focus is to develop new communication protocols for gigabit-per-second data interchange between computers and new ways to apply chaos-theory math models to pattern-recognition systems that could understand speech, handwriting and gestures.

Other entries covered voice recognition and analysis of medical images. HP awarded prizes, including an HP workstation, PCs and calculators.

Before the contest, many of the winners had no contact whatsoever with the “Western world.” Researchers in fields other than mathematics and particle physics did not travel outside the country, and most are unknown outside Russia. These people live in communities scattered across the former Soviet Union with some people

located in what were military complexes and “closed towns.”

“Now by reaching out,” says Nick Rossiter, “we are offering CIS citizens an alternative to emigrating or abandoning their scientific work for financial reasons... So by planting the seeds now for a new infrastructure in the region, these gifted researchers and scientists can improve their tools while getting exposure to HP’s advanced technology.

“It’s a win-win deal.” **M**

(Mary Weed is the manager of executive and internal communications and public affairs for HP in Europe. —Editor)

Attack from above

As a technical consultant for HP, I have recently experienced several problems whereby my customer's systems and software orders could not be fulfilled on time. I am glad to see that the problem is being attacked from the highest levels within our organization ("Winner takes all," March-April 1993 *MEASURE*).

Our order-fulfillment delays have resulted in my (1) having to work until 2 a.m. on two consecutive weekend days to set up my customer's bond-trading department, and (2) taking at least 30 minutes of migration-planning meeting time to discuss order status with another financial-services customer.

The time I spend to resolve our order-fulfillment problems could be spent more effectively delivering other valuable technical services, rather than having to track down systems and software orders.

MARY SEGER
Chicago, Illinois

More words, fewer comics

Your article "Winner takes all" may have been very good; I'll never know. I couldn't get serious about reading it because of the frivolous cartoons.

Please give your readers more credit for professionalism—more words, fewer comics.

DEBORAH MARBACH
Palo Alto, California

(Order fulfillment is a terribly serious and complex problem, so MEASURE purposely used a "tight" illustration to make it as visually

interesting and understandable as possible. Please, Deborah, tear the illustration off the bottom half of the page and read the story. It's that important.—Editor)

A nice fit

Thank you and your team for the quality of the content of *MEASURE*'s 30th-anniversary issue. I found the articles to be closer than ever to people (their work and life), to customers and to real company issues.

I am convinced that this type of communication fits nicely with the HP way and the style of our new leadership.

Very best regards and long life to *MEASURE*.

ROBERT AYDABIRIAN
Evry, France

Please send mail

Do you have comments about something you've read in *MEASURE*? Send us your thoughts. If we publish your letter, you'll receive a free *MEASURE* T-shirt (one size fits most).

Fax comments to (415) 857-7299. Address HP Desk letters to Jay Coleman; by company mail to Jay Coleman, Building 20/BR, Palo Alto. Via regular postal service the address is *MEASURE*, P.O. Box 10301, Palo Alto, CA 94304-1181 USA.

Please limit your letter to about 150 words, sign your name and give your location. We reserve the right to edit letters.

A damnable word

I was reading through my November-December 1992 copy of *MEASURE* today (okay, so I buried it under a pile of stuff for a couple of months) and came across something that bothered me enough to write you this note.

I was reading the "One guy..." article about Ron Glass being the only customer engineer for the entire state of Montana. As I read along, I came to a passage that was completely out of character for *MEASURE*. On page 23 there is a paragraph that begins with the sentence, "That's the thing about being a one-man shop in a damn-huge state: you have to be a jack-of-all-trades."

The use of the term "damn-huge" was crude, tasteless and totally unnecessary. Please have your editors keep an eye out for such street language in the future.

JOHN HOPKINS
Palo Alto, California

(While you won't find the phrase "damn-huge" often in MEASURE, we believed it was appropriate in the context of this story, in which the writer compared Ron Glass to the rough-and-ready, old-West fictional character Boone Caudill. We're sorry that you were offended, but we're happy you were able to unearth your copy of MEASURE.—Editor)

All in the family

The 3-year-young HP child named *INSIDER* (HP Switzerland employee magazine) congratulates his big brother (or sister?), *MEASURE*, on his (or her) 30th birthday.

Stay as interesting as you are!

REGULA TESTI
Widen, Switzerland

Thanks, Bruce...

I have just read the March-April issue of *MEASURE* and would like to applaud the article by Bruce Woolpert entitled "Can HP still lead?" I found the observations and comments to be both extremely incisive and constructive.

In particular, I found myself agreeing with the paragraph headed, "Give more authority to individuals and teams." I think we have a tendency to fear failure and hence an aversion to "put our neck on the line." I believe this fear is generated from within management and leads to managers attempting to control their people with restrictive bureaucracy.

I have been happy working for HP for 12 years, man and boy from the age of 16, and I am keen to see us continually improve whilst retaining the philosophy behind the HP way.

My thanks to Bruce for highlighting an issue which has caused me not a little frustration at times.

ANDY RAPLEY
Bracknell, England

(Bruce seems to have struck a chord. Read on.—Editor)

And MEASURE, too

Bravo on *MEASURE*'s courage to publish "Can HP still lead?" And many thanks to Mr. Woolpert for taking the time to write about it. How easy it is to be involved in the very situations he describes and give up with the thought nothing I can do will make a difference!

I hope *MEASURE* will continue to courageously question the old-established and the new-emerging authorities at HP upper management.

It will do us all good.

DAVID CRAMPTON
Palo Alto, California



Granite Rock's Bruce Woolpert

(Sometimes other people see us more clearly than we see ourselves. MEASURE will continue to seek—and print—"Other Voices." Any suggestions?—Editor)

Customers are No. 1

As always, I enjoyed reading the latest issue of *MEASURE*. I would, however, like to point out some discrepancies in two of the articles in the March-April issue.

In "Winner takes all," you state "Many problems are relatively minor—late deliveries, missing pieces, bad documentation, etc." These problems are not minor to our customers. It means that they are unable to use the product in a timely manner, and that to them is major. I believe that as long as we consider these "minor" problems, we will never have the will to fix the order-fulfillment process.

In the article "Can HP still lead?" Bruce Woolpert states that "HP needs to get closer to the customer. For example, phone and mail customer surveys...A formal customer suggestion/complaint system...etc." Actually, HP has been doing customer surveys since 1986 and has had a customer-feedback system since 1987. Appar-

ently, there are many people in HP who are not aware of them.

THOM EDMONDS
Mountain View, California

(Good points, Thom. Perhaps we should have said that order-fulfillment problems such as missing pieces and bad documentation are more easily corrected—not "minor." And thanks for the customer-feedback reminders.—Editor)

Drop the doughnuts

The HP way I learned first to admire in 1981 was comprehensive. Lew Platt's HP way (March-April *MEASURE*) defines a relationship between HP and its employees—between management and individual contributors to be more specific. This definition certainly focuses on the line of trust.

If the essence of the HP way is trust in employees, it is admirable, but also understandable, why most—if not all—HP managers have difficulty implementing it in their daily activities. I would like to suggest we drop the doughnut analogy as just a bad eating habit and substitute managing by walking around. Why do so many HP managers just manage to walk around? Stop meeting with each other so often and ask your individual contributors for advice.

The sum of each manager's implementation of the HP way has become too diverse to be meaningful. I would suggest a return to a more comprehensively and consistently implemented HP way. Whether the HP way is dead or irrelevant is moot. Whether there is an HP way that everyone is traveling down together is critical for our future.

WOLFGANG DEMMEL
Cupertino, California

A sense of community

"To honor our obligations to society by being an economic, intellectual and social asset to each nation and each community in which we operate."

HP's citizenship objective formalizes a tradition begun in 1939 when co-founders Bill Hewlett and Dave Packard launched a company and a philosophy.

Today, more than 100 U.S. colleges and universities and several dozen higher-education schools in other countries receive HP grants.

Designing new HP products to be easier to reuse and recycle, and more energy efficient is part of how HP strives to be environmentally responsible in the products it makes and the way it operates around the world.

HP cash and equipment donations help cultural organizations manage their business activities much more efficiently. Recipients include the San Francisco (California) Symphony, the Woodruff Arts Center in Atlanta, Georgia, and the Tears of Joy Theater in Vancouver, Washington.

HP and its employees continue to give back to our communities, contributing where we can and encouraging similar actions by others. **M**

(The subjects on these pages are featured in the brochure, "A sense of community," which is available through the Literature Distribution Center, part number 5091-5940EUS.)



PHOTOS BY NASK STEPHENSON

above

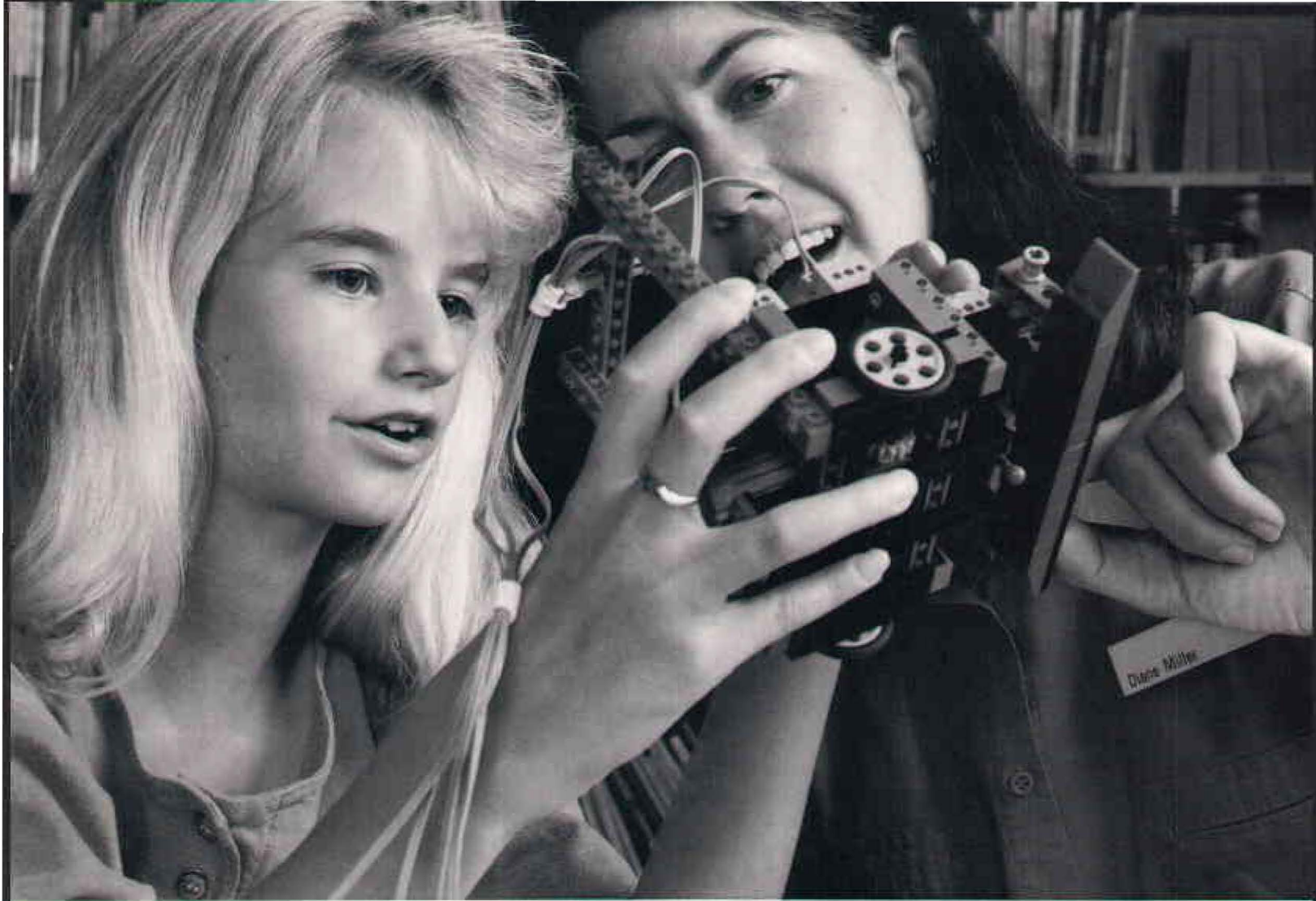
HP volunteers Christine Witzel, Lynn Rowley and Rick Brown help collect and distribute food for the Aris Project in Santa Clara, California, for people afflicted with AIDS/HIV.

above right

HP engineer Diane Miller helps fifth-grader Holli Sheahan build a motor as part of the Visiting Scientists program at HP's Fort Collins, Colorado, site.

right and far right

Equipment grants—like a recent one to Taiwan's National Tsing Hua University—help speed the development of technical expertise around the world.



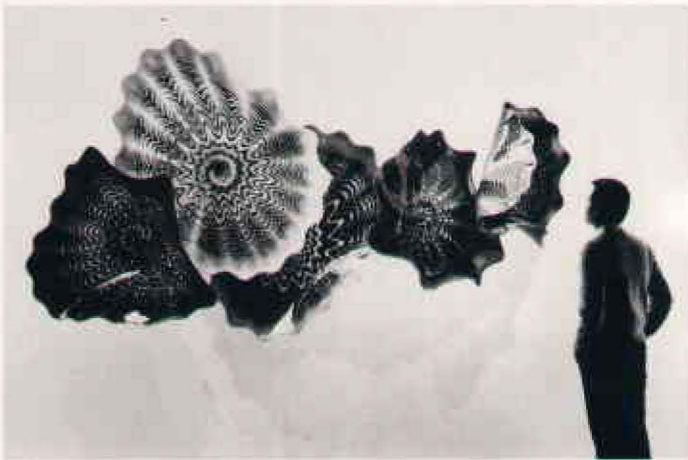
Community



PHOTOS BY MARK STEPHENSON

right

Donated HP computer systems, scanners and printers located in a sensory-aids lab at Maryland Rehabilitation Center enable people who are visually impaired or blind to scan printed matter and enlarge the text or print it in Braille.

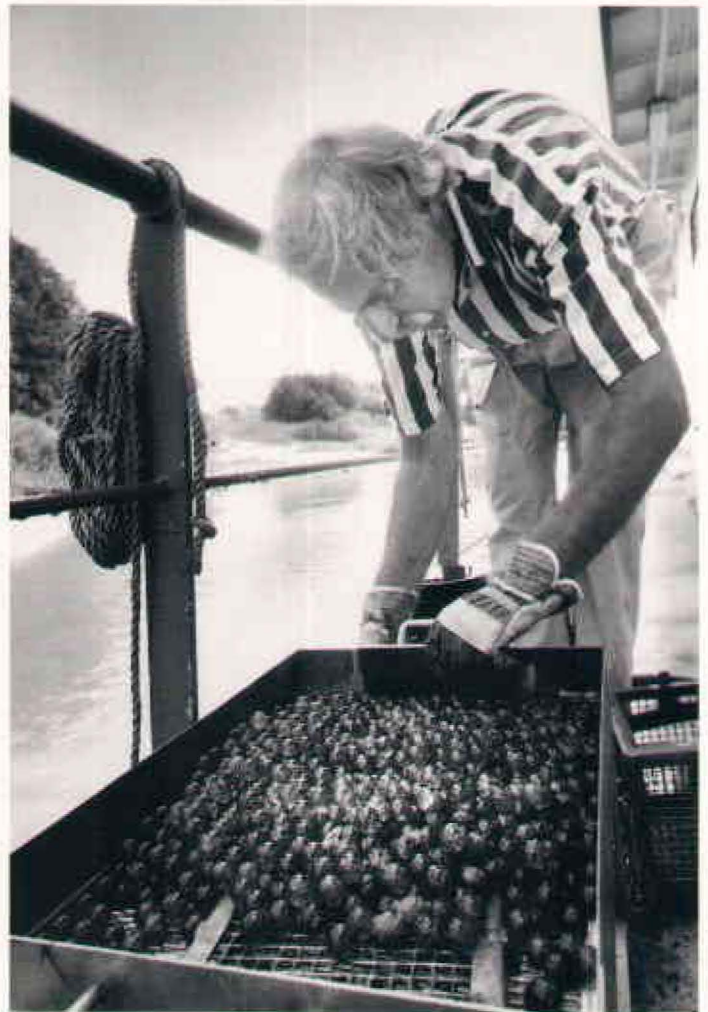


above

HP has assisted dozens of cultural organizations by donating equipment that improves the effectiveness of management functions. The Rufino Tamayo Museum in Mexico City uses HP equipment to catalog and describe exhibits.

right

The Rhine Basin Program was created to develop techniques that will lead to a better understanding of how to solve the Rhine River's ecological problems. Here, a biologist at the Rhine monitoring station rinses specimens from a box with marbles that were left on the river bottom. By studying the flora and fauna accumulated, scientists can tell a great deal about the river's health.





Another ladder to the top

An HP program gives R&D engineers a way to advance other than by the traditional management track.

By M. Kathleen Archambeau

According to Dr. Marsha Sinetar's theory—and the title of her 1987 book—"Do what you love, the money will follow." However, in practice, that wasn't true for many of HP's top scientists, engineers and developers.

Until recently, the only way to advance in HP was up the management career ladder. So, four years ago, HP's top executives spent a year analyzing the R&D organization and developed HP's Technical Contributor Program.

R&D engineers now can advance along a technical career path that parallels the standard R&D management track—from project manager to entity R&D manager.

This dual career ladder offers comparable financial rewards, recognition and influence over the strategic business directions.

Technology leaders influence business decisions by participating in functional staff meetings, making presentations at major customer visits and delivering papers at conferences.

What do some HP engineers think of the change? Moshe Zloof "loves to get up in the morning and go to work." That's why he chose the technical track. This path gives his creative abilities and interests full play. Moshe developed the original Query By Example while at IBM. Currently, HP Labs' principal architect is working on a new tool that will allow programmers to create new applications and customize them and allow them to connect to others.

"Everyone wants three things: recognition from peers, adequate compensation and access to decisions," says Rose O'Donnell, corporate consulting engineer in the Computer Systems Organization. When HP acquired Apollo Computer in 1989, Rose—an Apollo engineer at the time—couldn't



HP's "dual ladder" program should be expanded to other areas, says engineer Rose O'Donnell.

believe that HP, a technology company, didn't have a formal technical career ladder for its engineers.

Rose, who is credited with developing the Domain Operating System and helping retain the Apollo installed base after HP's acquisition of Apollo, believes in HP's new Technical Contributor Program so much that she says it should be expanded to marketing and other functional HP areas "where there are valued skills that aren't related to managing."

Joe Sventek, the lead architect of CSO's Distributed Computing Program, chose the technical ladder because "I don't think anybody wants to stand still, so I'm very glad to have this opportunity to apply my skills to HP's bottom line and to be recognized for my efforts."

What should young engineers do when faced with the decision of choosing between the technical or management ladder? Jim Serum,

ED MALUTSKY

general manager of MS/IR Systems and Analytical Group R&D, suggests that almost all engineers struggle with this issue due to their technical training and lack of knowledge needed to evaluate the management ladder.

"There's probably no easy answer," Jim says. "But the beauty of the program is that it's designed to be fairly fluid at the beginning levels. In other words, a project manager could decide against management as a career and, potentially, move over to the engineer/scientist level."

How do technical contributors stay at the "bleeding edge" of rapidly changing technology? Barry Flahive, a senior consulting engineer in the Workstation Systems Group, "reads a lot, attends conferences and interacts with HP partners, customers, vendors and technology gurus. He says "There's an incredible wealth of knowledge and capability within HP."

Why did HP management decide to provide R&D engineers with this career opportunity program? Wim Roelandts, vice president of the Computer Systems Organization, feels that the business need for systemwide development "can involve, literally, hundreds of engineers. The old environment allowed people to work independently on discrete products. That's impossible in today's heterogeneous environment.

"Applications run on multiple hardware platforms, across networks, so there's a need for technology leaders to help integrate the technical strategy with the business imperative."

Has HP lost some of its top technical contributors in the past? "Absolutely," Wim says. "The Technical Contributor Program helps us retain engineers who are genuinely interested, I might say, passionate, in



Jim Serum (right), a G.M. in the Analytical Group, talks with Alex Appfel, an individual contributor, outside of the SID Operation in Palo Alto, California.

one area to do what fascinates them. And, in doing so, contribute to HP's bottom line."

Michael Mahon, principal architect on the team that developed HP Precision Architecture (RISC), agrees. "The only thing that would make this job more fun would be having more resources," Michael says.

Joel Birnbaum, R&D vice president and director of HP Labs, says "At HP, technical contributors are reviewed annually. The job follows a rolling tenure track. As long as there is a business need and you're meeting that need with your technical and mentoring talents, you will be encouraged to continue. This approach prevents the lethargy that sometimes ensues in large companies and universities."

However, the technical track is not an easy path to follow. "HP expects a lot of its top technical contributors," Joel says. "There's a great deal of pressure to investigate the imponderables." Allowing that this is a levianthan task, he adds, "A great mistake,

well understood, can be just as valuable as a great breakthrough."

Josh Fisher, former Yale University computer science professor and creator of Very Long Instruction Word (VLIW) architectures, or "machines that can do a lot, a lot faster," sums it up this way, "When I was involved with a company I started, Multiflow, I spent 80 to 90 percent of my day on management tasks that didn't satisfy me at the end of the day. In my role as an instruction-level, parallel-computing architect at HP Labs, I spend at least 60 to 70 percent of my day doing what I love—trying to solve some of the hard technical problems that will help HP's computing business compete into the next century."

Grandiose visions? Not for the dreamers who do what they love and realize that the rewards do follow. **M**

(Kathleen Archambeau is a San Francisco, California-based freelance writer.—Editor)



"A job is what you make it," says the New Jersey Division's Julie Ryan, who built a remarketing program from the ground up.

Julie DEALS in challenges

A New Jersey Division employee uses her entry-level job as a springboard to managing an innovative multimillion-dollar program.

By Robert Bouzon

ROCKAWAY, New Jersey—In mid-1988, a newspaper ad caught Julie Ryan's eye.

She doesn't recall the exact wording, but it went something like, "If you're someone who likes a tremendous challenge, we have an exciting opportunity for you...." The company running the ad was Hewlett-Packard.

Having heard good things about HP, Julie was interested. She knew she could handle more than the job she held at the time—supervising the state tax department for a national financial firm.

Yet the HP ad was for an administrative-assistant position. Would this be challenge enough?

She had worked her way up from executive secretary to her supervisory position, and at a previous company had risen from secretary to office manager. Could she achieve similar growth in a much bigger company?

The words from the ad echoed in her mind. Tremendous challenge: the one thing Julie Ryan just can't pass up.

"A job is what you make it," Julie says today. "In a clerical role, there are so many opportunities to make a difference."

Living those words, Julie has turned her entry-level HP job into a path to management-level responsibility. Today, Julie manages the Test and Measurement Organization's DEALS

(Demo Equipment And Loaner Sales) team and its worldwide, multimillion-dollar instrument-remarketing program.

Her can-do attitude and customer-service commitment are legendary among the factory people whose products DEALS handles and the field sales force that DEALS serves.

After joining HP in 1988 as an admin assistant in the sales-support

"Julie was a cornerstone of this program. She goes the extra mile."

group at HP's New Jersey Division (NJD), Julie plunged right in. One of her tasks was to coordinate the group's Field Appreciation Program, which helped earn NJD top ranking from the T&M sales force for field support.

"Julie was a cornerstone of this program," recalls Bill Kampe, then NJD's marketing manager and now Electronic Instruments Group marketing manager. "We needed a very special person for this kind of sensitive interface. Julie does more than what's asked. She does what's needed. She goes the extra mile."

It was Julie's knowledge of the field—and those exemplary personal skills—that earned her the job as DEALS coordinator when the program began in late 1990.

The 12- and 14-hour days it took to launch the DEALS program were "overwhelming," Julie recalls. "Good things rarely come easy. That's what makes you appreciate them."

Starting with five pilot divisions, Julie played a key role in building



Julie visits with Walt Gursky, New Jersey Division production supervisor, to check on how the DEALS equipment refurbishment is progressing.

field and factory confidence that the untried and risky program could work.

"DEALS tackled a big problem—how to make HP's used instruments quickly available to the field," says Jim Barton, general manager of NJD, where the DEALS team resides.

HP's used instrument inventory comes from equipment loaned to customers, products used in field consignment, and items used at trade shows and in HP's labs. Before remarketing, HP refurbishes the products, which go to customers with full warranty.

"The field used to have to call around to various divisions hunting for products and negotiating discounts—a daunting task," Jim explains. "Julie was incredibly dedicated and customer-oriented in getting the sales force to trust that

one phone call would get their problem handled."

"Each division is unique in the way it does things," Julie says. "So we had to develop new approaches to make DEALS work."

Once word spread of Julie's performance in setting up DEALS for the pilot group, "the other T&M divisions signed up and quickly became enthusiastic participants," Jim says.

"It became clear quickly that I would need some help with DEALS," Julie recounts. Yet due to downsizing in T&M at the time, it would be many months before more staff could be added.

Julie had to learn all about HP's hundreds of instruments and their features, know each division's inventory and marketing programs, and meet the high-pressure deadlines of the

field in competitive situations. "She mastered all aspects of the project," Bill Kampe says.

Julie's organizational skills resulted in processes for DEALS that accommodate and regulate both field and division activities. She worked with NJD's information-technology department to develop a DEALS database, build solid relationships with everyone who called in and double the business every nine months.

"Julie essentially pulled the whole program together and made it succeed," says Vicki Gripe, marketing admin manager at the Colorado Springs (Colorado) Division. "She is very sensitive to the people she deals with and quite savvy on the business side as well."

Today, 17 T&M divisions are part of the DEALS program, which will expand soon to handle instruments repurchased from HP customers.

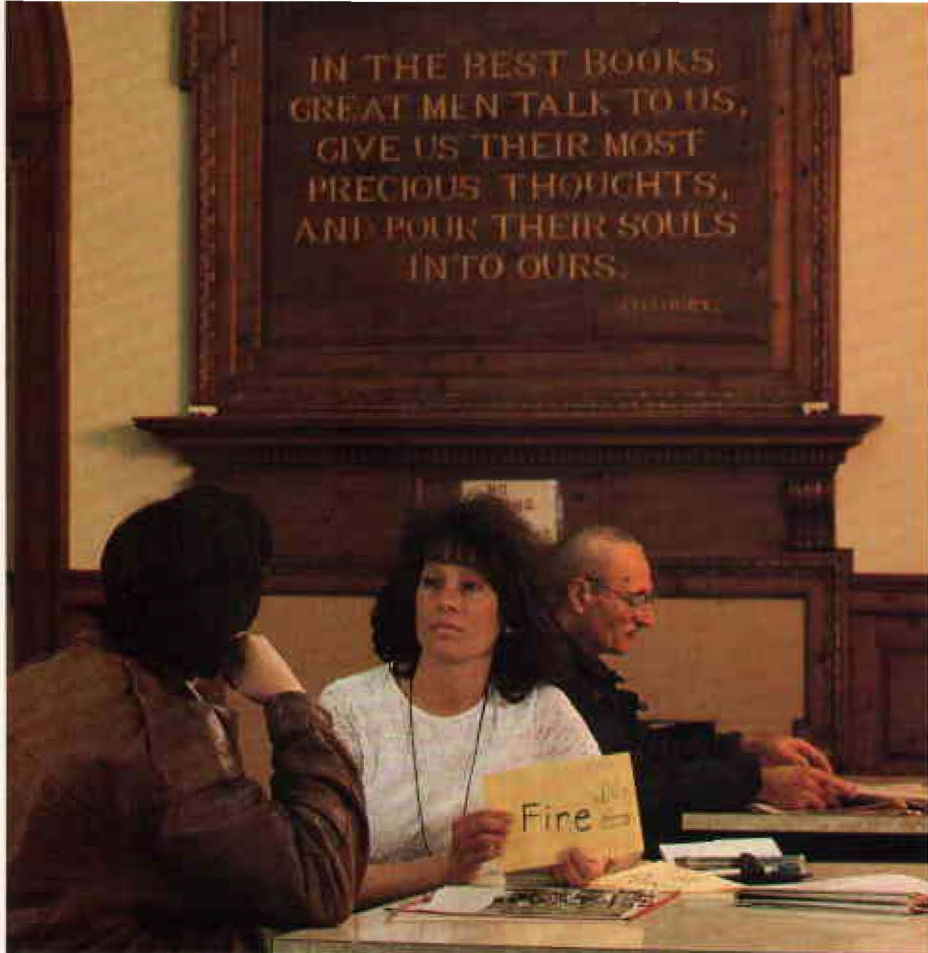
Julie credits her team—now eight people strong—with DEALS' success. "They overshadow me," she says.

"It takes a lot of dedication on everybody's part. The days are long and sometimes frustrating," she says.

"The HP way doesn't mean getting exactly what you want; it's teamwork..."

"Yet the team takes ownership, and people appreciate having someone they can rely on."

Says Gordon Message, field sales engineer in East Anglia, England, "Julie's people all have the same positive can-I-help-you attitude. It's a pleasure to ring them."



Julie tutors a student in an adult literacy program at the Dover, New Jersey, Public Library. She helped set up a chapter of Literacy Volunteers of America in her community.

Despite the long hours managing the DEALS program, Julie makes time for other pursuits, including helping others.

Simultaneously with the DEALS startup, Julie spent evenings and weekends tutoring in a literacy program and working to set up a county chapter of Literacy Volunteers of America. She recruited volunteers for training, arranged schools and libraries where tutors could meet their students and raised funds.

One of nine children, Julie ascribes her strengths to growing up in a "wonderful family. My mom had so much patience," she says, "and my dad, who was in the military, taught us to do things right."

An avid gardener and trained floral arranger, Julie tends beds of flowers and vegetables at her home in the hills of northwest New Jersey.

Julie also has been pursuing her college degree, taking night classes twice a week year-round. She is in her junior year at Centenary College in

Hackettstown, New Jersey, where she lives.

The DEALS program, and what Julie has brought to it, continues to do good things for HP's Rockaway, New Jersey, site. During NJD downsizing, a number of employees found growth opportunities.

With the site growing again (both the East Coast Consignment Center and Repair Center have relocated there), the DEALS team's enthusiasm and team spirit are spreading.

"It's like the old HP spirit," says Jill Kenny, DEALS' newest team member. "It's really exciting."

"I've worked for many companies, and HP is the best," Julie says. "The HP way doesn't mean getting exactly what you want; it's teamwork, sharing workloads and understanding people."

"The most important part of DEALS is the people. They are No. 1." **M**

(Robert Bouzon is HP's East Coast public affairs manager.—Editor)

MEASURE

1. How much of this issue did you read?

- All of it Most of it About half
 A few articles Just looked at the photos

2. Please rate the following articles between 1 and 4 with 4 being "very interesting" and 1 being "not interesting at all."

	1	2	3	4
Articles				
Facing change	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Taking off the shackles	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
New frontiers: HP in Russia	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Another ladder to the top	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Departments				
Your Turn	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A sense of community (photo feature)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Julie DEALS in challenges (People)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
"I never saw him alive again" (On My Mind)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Letter from Lew Platt	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ExtraMEASURE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Parting Shot	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3. What comments or suggestions for future stories or photo features do you have? _____

4. HP entity or location (city and country): _____

If possible, please return through interoffice mail.



Jay Coleman, Editor
MEASURE magazine
Interoffice mail—MS/20BR
3000 Hanover Street
Palo Alto, California 94304
USA

"I never saw him alive again"

By Aldona Pilius

My husband, Vito, left for work on February 11, 1992, a bit earlier than usual. The customer engineers in Baltimore were shorthanded and he wanted to get a head start.

I never saw him alive again. He was abducted from a parking garage later that day after leaving a customer site. He was robbed and murdered by two teenagers.

Vito had told me that morning that he would be working late. But by 8 p.m. I started to worry.

I made phone calls to his beeper, his car phone and his office, assuming there was a reason he could not be reached. But he had always let me know when he was going to be home.

The next morning I phoned one of Vito's co-workers. He did some checking and found out that Vito never made it to his afternoon appointment. He advised me to call the police, which I did.

Throughout the next day, Rosemary Roos, who was Vito's sales coordinator, kept in constant touch. She gave me support by telling me that Vito's manager, Fred Parlato, had sent out other customer engineers—not to work but to look for Vito and his company car. She gave me comfort by keeping in contact and just being there to listen.



HP employees have helped comfort Aldona Pilius and her sons (from left) Jonas, Vitas, Darius and Tomas since her husband, Vito, was murdered.

Rosemary gave me advice, too, like telling me to check the activities on my credit cards and bank accounts. When I inquired, I found that the savings account, which had a minimum balance, was depleted and the credit card was charged up into the thousands of dollars. That's when I knew something was desperately wrong.

On February 14, after the police found Vito's body, I was very grateful for the support Vito's co-workers gave me. They came to the house with food and sympathy and photographs of Vito at their last awards banquet.

An elderly woman—a neighbor whom I did not know—came over with a cake. She told me that her daughter worked for HP in Pennsylvania and had begged her to please bring me something.

Within days, Joe Millington, the personnel manager in Rockville, Maryland, came by and announced the start of a trust fund for our children's education. Vito and I have four young sons and Vito always dreamed that we would be able to provide them with a chance for higher education.

Donations started coming in from all over the HP world, including a contribution from Yokogawa Analytical Systems in Japan. I was totally overwhelmed by the generous response.

It eliminated a financial worry for me and it means the boys will have a chance to go to college or get training for whatever career they choose to pursue. They may not know it yet, but it will be important to them someday.

Even months after Vito's death, caring HP co-workers took my sons on trips to the zoo, to the movies and for pizza so I could have a day to myself. They even took the boys trick-or-treating on Halloween.

I received many letters of sympathy from HP employees and was comforted to know that so many people cared. In one way or another they had all been touched by Vito.

When a sorrow is shared, it is lessened. Because of all the caring people of Hewlett-Packard, I feel that I am not alone.

My sons and I are coping with Vito's death. We miss him tremendously and some days are still grueling and difficult. But we are hoping that we can live through our grief and hold on to the warm memories of our husband and father. **M**

(Vito Pilius was an Analytical customer engineer for the Eastern Sales Region at HP's Baltimore, Maryland, office.—Editor)

HP's president and CEO talks about change and the best way of managing it.

A theme that is very prevalent in the mail I get and from talking to people throughout the company is the concern employees feel about the increasing level of change that is taking place in their working lives.

This concern has caused me to think a great deal about change and how we can best manage it at HP.

One thing is certain: Things will continue to change at an ever-accelerating rate. That is because we are in a business that is driven by change.

For one, the technology we and other high-technology companies create is changing very rapidly. We live in a constantly changing environment and, in a very real sense, we are aggressive drivers of change in our world with the technology we invent.

Our competitors also are challenging us to change—and change quickly—to keep up and stay current in a rough-and-tumble business.

And our customers insist that we change. They are re-engineering their processes, and their own needs dictate that we meet their changing requirements. If we hope to realize our vision of making people and

organizations more effective, we need to constantly change to deliver solutions to our customers.

So change will be with us today—and even more so tomorrow.

How have we managed change to date and how can we do better?

In many respects, HP's management team has done an excellent job of reacting to some wrenching changes in our industry. We have been more proactive than most of our competitors at anticipating the direction change will take and being the first to make the change—being the forerunner of change, in fact.

Because of this innovative approach to our business, we have managed to continue to grow and be profitable while others—IBM and Digital Equipment, for example—have stumbled.

I am thinking, specifically, of our foresight in debuting RISC technology and our early entry into the client-server and open-systems-computing marketplace. Then there is the new technology we invented to change the printer marketplace for all time and

We haven't done as well handling the change process for employees.

allow us to take leadership. Our measurement businesses also are changing as they look for major new growth markets to replace those that no longer are growing.

In these instances, HP has driven change rather than become its victim.

Where I believe we haven't done as well is our handling of the change process for employees. By that I mean letting people know in advance what

Each employee must take responsibility for anticipating changes.

changes are coming; communicating clearly the "why" of the change; and treating people with dignity and respect throughout the transition process. In short, that whole series of communications and considerations that help people get through change with less pain.

Of course, I do not believe in change for change's sake. That is why I have asked HP managers not to make changes unless they fulfill a much-needed business requirement and there is something substantial to be gained. We are pelted with enough real change in our business. It makes no sense to cause disruption when it is not absolutely necessary.

Questions that have come up are: What is the company's role in the change process and what is each individual HP employee's role?

I believe HP management must create a climate in which employees can feel comfortable and unthreatened

by change, in which HP people can take risks, in which change means opportunity.

The company also should provide skill-building opportunities for employees and stress the importance of lifelong learning and managing one's own career.

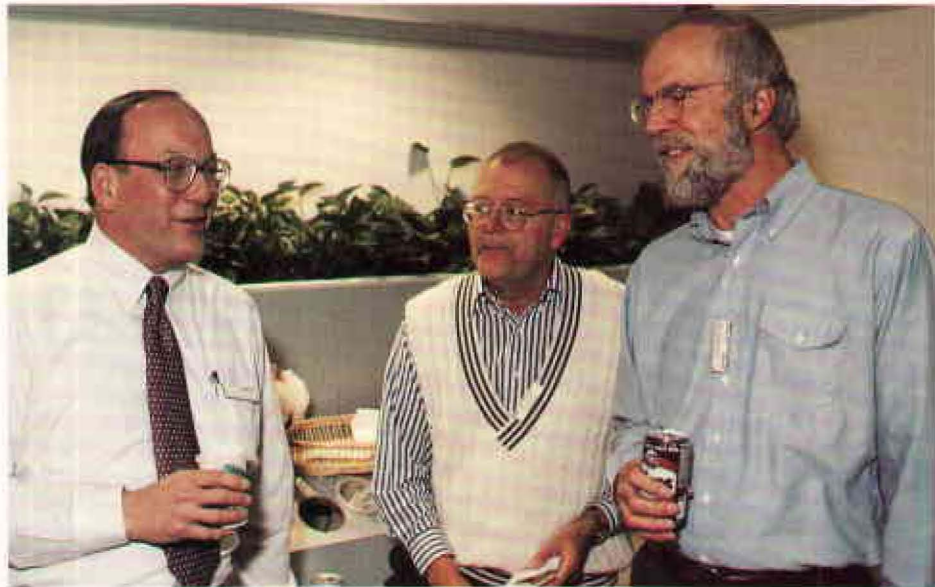
On the other hand, individuals need to be truly accountable for their own destinies in the company. HP management can create a healthy environment for change, but each employee must take responsibility for anticipating changes and converting them into opportunities.

In my own case, change has given me many opportunities. However, it also brought with it the stress of relocating my family from New England

Each change was disruptive to my professional and personal life.

to California, and the challenge of learning many new jobs.

Since 1984—when I left HP's measurement businesses after 18 years to become involved with HP's computer business—I've had a half-dozen different jobs. Each has offered exciting new challenges, but each change also was disruptive to my professional and personal life.



During a recent trip to Chelmsford, Massachusetts, President and CEO Lew Platt (left) chats with Bill Davis and Tim Blanchard.

What has the HP way to do with change? I think it gives us a framework, a road map for how we manage change at HP.

Are we treating people with consideration and respect throughout the transition process? Are we listening to the concerns of those who are going through difficult changes? Are we telling employees on an ongoing basis the needs of our customers and our competitors, and the quickly changing imperatives of our business? Are we encouraging risk-taking and career management? HP way values can help answer those questions for us.

Finally, I can assure you that change will continue to be a way of life in HP.

That means that change and flexibility are core competencies that we all must master in order to succeed—both personally and as a company.

HP will do everything it can to provide the atmosphere you need to prosper in a changing world. I encourage you to become masters of change in your own lives.

News from around the HP world

Smart move

It didn't take John Young very long to find another job challenge after retiring as HP's president and CEO in November 1992.

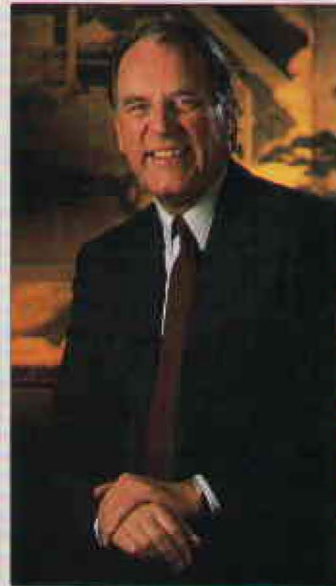
In April, John was named chairman of Smart Valley Inc.—a nonprofit corporation formed to develop a plan to link all segments of Silicon Valley, including companies, government, schools, hospitals and social-service agencies, through a data-communications network.

Joint Venture: Silicon Valley—the parent group of Smart Valley—already is studying issues such as workforce/education, housing, economic development, tax and fiscal policies, regulatory reform and defense conversion.

John also heads a group of business executives that is examining ways to speed development of President Clinton's proposed national data "superhighway."

"Implementing some demonstration projects locally may influence what happens at the national level and tie both ends together," John was quoted in the *San Jose Mercury News* newspaper.

Seth Fearey of HP Labs in Palo Alto, California, will serve as chief technical advisor to Smart Valley.



John Young



Bob Reynard had several memorable experiences during his month in Ukraine, including this outdoor market scene.

What's a profit?

While HP continues to pursue business opportunities in the former Soviet Union (see page 11), one HP employee recently got a first-hand look at life from a Ukrainian perspective.

Bob Reynard, a technical consultant in HP's Naperville, Illinois, sales office, spent a month of his vacation time lending a hand to a U.S.-based group called Volunteers in Overseas Cooperative Assistance.

A certified public accountant, Bob spent most of his time teaching farmers how to use computer equipment and basic accounting.

"I had to begin with simple things like record-keeping, financial statements and what 'profit' means," Bob says. "They knew nothing of these

concepts because the state owned everything and they used only inventory listings."

Bob says that the Ukrainian people were patient and willing to learn, but that there is no work ethic. "Our interpreter told us of an old adage: The people pretend to work and the government pretends to pay."

Among the software programs Bob installed were HP Executive Memo-Maker, HP Executive Card Manager, HP Executive Drawing Gallery and HP Executive Charting Gallery.

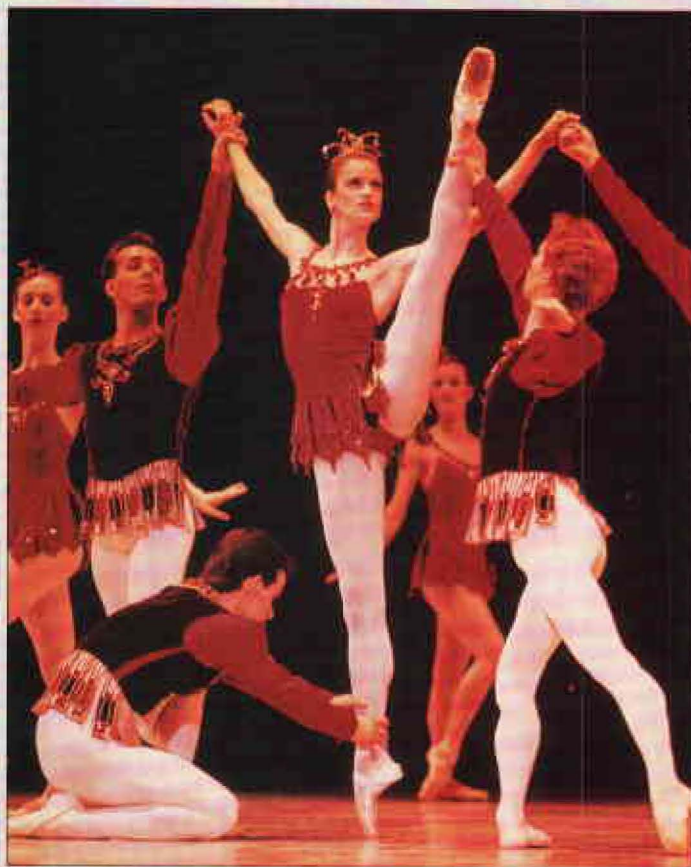
"Their technology is at least 10 years old," Bob says. "But the more educated the people were, the more they desired and understood the need for new technology."

Grant-making history

HP recently made the biggest grant to the arts in company history—a \$717,000 HP 3000 computer system—to the San Francisco Ballet and San Francisco Opera.

Through an innovative cooperative venture, the two non-profits share resources, including their computer system, and explore solutions to common problems.

Both companies are known for world-class performances. They apply the same standards to running their businesses. And the HP 3000 will mean greater efficiency in their operations and improved service to patrons.



The San Francisco Ballet kicks into high gear with help from HP.

Science on a roll

A science lab on wheels is teaching Los Angeles, California-area high school teachers and students more about modern scientific instruments, and they're learning the lessons on HP equipment.

Occidental College launched the Teachers+Occidental=Partnership in Science (TOPS) program two years ago. It's the only program in the United States that focuses on schools in an urban area where there is a large minority population.

"We strongly believe that all major metropolitan areas will increasingly need to find ways to give hope and encouragement to minority youth," says Dr. Chris Craney, the program director. "The excitement and promise of scientific dis-

MARK STEPHENSON



Hoover High students learn to use an HP UV-spectrophotometer.

covery is one way to do just that."

TOPS used a National Science Foundation grant to equip a van with several pieces of HP analytical equipment, including gas chromatographs, UV-Vis spectrophotometers and an HP Vectra PC.

The program is expected to reach 45,000 students at 30 high schools during the next four years.

No. 24 and climbing

HP jumped from No. 26 to No. 24 in the annual Fortune 500 ranking of America's top industrial corporations.

In the "Computers, Office Equipment" category, HP trails only IBM (No. 4 overall). Others in the category

include Digital Equipment (27), Unisys (62), Apple Computer (76), Compaq Computer (119) and Sun Microsystems (139).

In the performance rankings, HP was No. 33 overall for "Highest Profits," No. 21 for "Highest Market Value," No. 34 for "Most Assets" and No. 21 for "Biggest Employers."

Hammer time

The Stanford Park Division (SPD) used all the subtlety of a sledge hammer when it changed its name in April. In fact, it used *two* sledge hammers.

SPD General Manager Jim Olson and Ned Barnholt, vice president and general manager of the Test and Measurement Organization, wielded sledge hammers to smash an SPD ice sculpture at an April 1 beer bust.

Then, employees wheeled out an ice sculpture of the letters VID—the symbol for the Video Communications Division—the new division name. The name reflects the division's new emphasis on the digital video market.

VID is scheduled to relocate from Palo Alto to Santa Clara, California, in May.



STEVE CASILLO

Announcing the new name for the Stanford Park Division was a smashing success for Jim Olson (left) and Ned Barnholt.

© 1993 JACK ZIEGLER/THE CARTOON BANK, INC.



"Henderson, you were a breath of fresh air 15 years ago when we transferred you here from the San Francisco office, but right now we want you to stop it."

Quoteworthy

“ I'm the only person who hasn't been contacted, and I'm also probably one of the few people who's not interested because I already have a better job. **”**

Low Platt, HP president and CEO, at the March 1993 HP Communicators' Workshop, when asked if he was a candidate for the then-vacant CEO post at IBM.

“ We made it easy for them to justify in their mind a decision they had already made in their heart. **”**

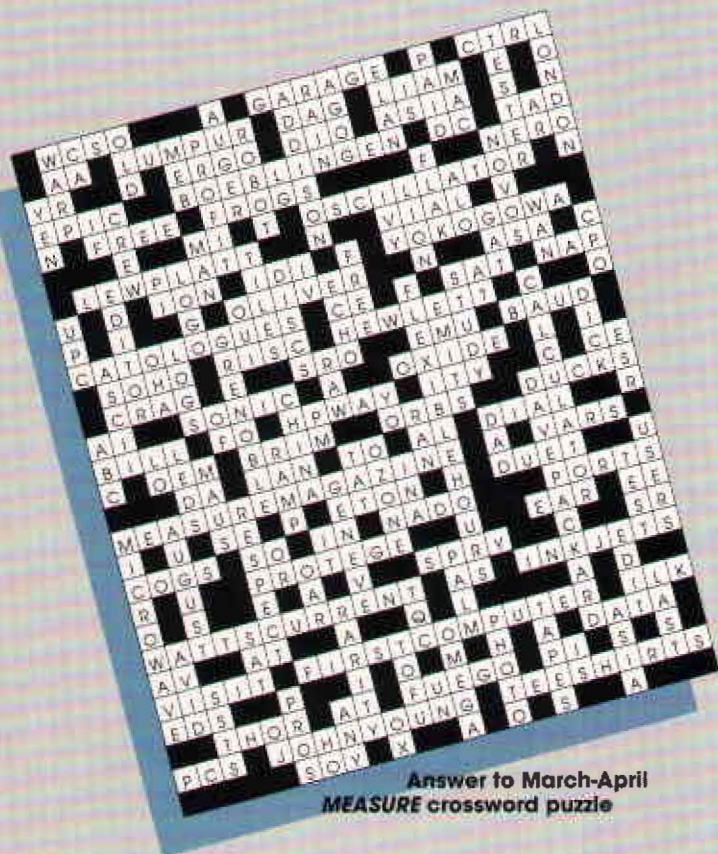
Mike Connor, district manager for HP's Florida sales district, after the Orlando Medical Products team won a \$5.7 million order for patient-monitoring equipment from the Orlando Regional Healthcare System.

“...it's obvious that a lot of (employees) haven't been communicated with very frankly. They haven't been told the real story; somebody has sugar-coated the bad news or somebody has fed them a line of b.s. because they didn't think employees could understand or accept the truth. Our people really want us to be truthful with them, and I think truth in communications is something we need to emphasize.”

Lew Platt, HP president and CEO, at the March 1993 HP Communicators' Workshop, when asked about his communication philosophy.

“I don't think people really enjoy change, but if they can participate in it and understand it, it can become a positive for them.”

Duane Hartley, general manager of the Microwave Instruments Division, Santa Rosa, California, in an interview in the April 5, 1993, Fortune magazine.



Answer to March-April MEASURE crossword puzzle

GETTING TOGETHER

HP will acquire Four Pi Systems Corporation of San Diego, California, a manufacturer of Automated Process Test systems that use X-ray technology to test surface-mount printed-circuit assemblies. Approval by Four Pi shareholders is pending.

HP is one of six UNIX* system companies that intend to deliver a common open-software environment across their UNIX-system platforms. Others are IBM, The Santa Cruz Operation, Sun Microsystems, Univel and UNIX System Laboratories.

HP, IBM and Sun Microsystems announced a joint Fibre Channel Systems Initiative to promote high-speed networking.

HP and Advanced Micro Devices will jointly develop 0.35-micron CMOS-logic technology by the end of 1994.

NEW HATS



John O'Rourke has joined HP from Bellcore in a newly created post as G.M., Telecommunications Operations and chief telecommunications architect, reporting to Vice President Joel Birnbaum...Takahiko

Kamae has joined HP Laboratories Japan in the newly created post of Director of Information Research.

Carol Mills to G.M., General Systems Division...Hallstein Moerk to G.M., HP Norway.

Heading two new entities within the Communications Components Division: Steve Cooper to operations manager, Folsom (California) Operation, and Norm Tarowsky to operations manager, Frimley (England) Operation.

WORTH NOTING



The Printing Systems Group will start assembling laser printers in The Netherlands for distribution in Europe at the European Distribution Center in Amersfoort, which will be expanded... A worksite school opened in February at HP's Santa Rosa, California, site. A joint project of HP and the local school board, it has kindergarten and first-grade classes, and will add second and third grades.

*UNIX is a registered trademark of UNIX System Laboratories Inc. in the U.S.A. and other countries.

Getting to the bottom of it

SNOQUALMIE, Washington —Paul Landry had taken many photos of the stunning Snoqualmie Falls from the observation deck at the top, but never got the one truly great shot he wanted.

Then, in the spring of 1992, Paul and his fiancée hiked to the bottom of the falls for a better perspective of the falls and the Salish Lodge, which were featured in the TV show *Twin Peaks*.

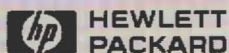
"I didn't use any special lenses, lighting or filters," says Paul, a parts coordinator in HP's Bellevue, Washington, sales office, about 18 miles from the falls.

"The photo, however, had an exposure time of about 2 1/2 minutes, which enabled the film to gather a lot of light," Paul says. "That created a lot of detail in the cliffs."



Twin Peaks fans will recognize Snoqualmie Falls and the Salish Lodge in Paul Landry's photo.

MOVED LATELY? CHANGE OF ADDRESS SHOULD BE REPORTED TO YOUR PERSONNEL DEPARTMENT.



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