

A magazine for Hewlett-Packard people

November-December 1994

MEASURE

A nice place
for a bit of
a giggle



There's a special place in my heart for Scotland, so you'll understand my envy when freelance photographer Chuck Fox

announced he would be vacationing there in August and would be happy to shoot a *MEASURE* assignment.

Ironically, the story (page 15) dealt with Caledonian MacBrayne, a ferry service that uses HP equipment for a variety of tasks. Scotland. Ferries. It was kismet. Let me explain.

Four years ago, my wife, Kate, and I planned to attend her family reunion in Ireland. It was a once-in-a-lifetime gathering of about 90 Flynns from Western Ireland, Manchester, England, and descendants scattered throughout the United States.

Kate and I decided to extend the vacation with a week in Paris—our favorite city. Never able to leave HP behind completely, I arranged a 1 1/2-day stopover in Scotland to research a *MEASURE* story.

The reunion was a rousing success—it's impossible to gather 90 Flynns together and have it any other way—before I set off alone for Scotland for the *MEASURE* story. Kate and I would meet later in Paris.

Just outside Edinburgh is HP's facility in South Queensferry. The city got its name 900 years ago because it was the prime ferry port from Edinburgh and local citizens loved Queen Margaret. So a ferry was responsible indirectly for HP's Scottish presence.

Ferry also happens to be my wife's maiden name, and her father traces his ancestry to Glasgow. Having a name like Ferry could open oneself up to a certain amount of teasing. Kate used to explain that "It's Ferry like the boat, not the godmother."

In any event, I thoroughly enjoyed my 36 hours in Scotland. The weather was mild, the scenery gorgeous, the dialects lovely and the people were delightfully warm.

When I completed my interviews, a secretary volunteered to drive me to the Edinburgh airport for the flight to Paris. Her manager had been traveling for the past 10 days, and the airport trip would give her the chance to make sure that his company car was in good working order.

I slid into the passenger seat, looking dapper in my Corporate navy blue suit. She reached down to release the emergency brake and, instead, tripped the car's fire extinguisher.

A cloud of white smoke engulfed us. I looked down to see that my once-proper navy suit now had a strange powder-blue hue.

The secretary and I brushed ourselves off as best we could, and she apologized profusely for her mistake during the drive to Edinburgh. She dropped me at the airport and I dashed onto the plane to Paris, looking a wee bit like a circus clown.

"Didn't get much of a tan in Scotland I see," Kate deadpanned when we met at the Paris airport. "I guess the country didn't suit you."

On the contrary, it's a marvelous place, as Chuck Fox's striking photos show. To me, the photos capture Scotland's true beauty.

I'm anxious to go there again some day. There's a lot more I want to learn about ferries, Ferrys and fire extinguishers.

—Jay Coleman



On the cover: People throughout England have known Boddingtons for its distinctive yellow and black umbrellas, coasters and beer cans for years. Today, the Boddington Group pubs and leisure hotels, like the one at The Moorings, are a nice place for "a bit of a giggle" or a place to conduct business, as HP's Tim Easton (left) and Boddington's Bill Gosling do.



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Is HP's Computer Systems Organization committed to improving its order-fulfillment record? *MEASURE* roots out the answer.

Hog wild for fulfillment

By David Price

The sun has barely escaped the clutches of night as Brigitte Breton strides briskly up the walkway to the Rockville, Maryland, sales office. Four hundred thirteen air-miles to the north, Steve Campbell hands a boarding pass to the attendant at the gate of USAir flight 2426. It's Monday morning and he won't see his family again until 9 p.m. Friday.

It is three hours earlier on the other coast of America. Sue Oliveira rises, prepares for the day and launches herself toward the Roseville, California, site. Darkness still grips the

landscape as she arrives. It will be dark again when she slips back into her car for the short drive home.

Brigitte Breton. Steve Campbell. Sue Oliveira. Their stories are not unusual. Almost 150 employees of the Computer Systems Organization

"Today (these legacy systems are) held together by baling wire, chewing gum and...some very talented people."

(CSO) have labored full time and more for the past year. And each has done it gladly. Their cause? To finally slash through the worst entanglement since the Gordian knot: CSO order fulfillment.

Order fulfillment is the chain of events that begins with the "gleam in the eye" of the customer and ends when a Hewlett-Packard product is humingly addressing a business need. Unfortunately, navigating an order through the current process is tougher than dog paddling through kelp. CSO order fulfillment has evolved into the leading cause of HP customer and employee frustration, as well as a nagging drain on profits.

"We have this composite of legacy systems that were world-class 20 years ago," says Wade Clowes, a pivotal member of the CSO Order Fulfillment Reengineering team. "Today it's held together by baling wire, chewing gum and the efforts of some very talented people.



ROBERT BURKE/L.P.

Stress-reducing toys often lead (from left) Alan Colvin, Joan Sterling and Brigitte Breton to creative solutions in a CSO "war room" in Rockville, Maryland.

"It's real clear to anyone who's looked at it closely that we can't get to where we need to go without a fundamental reset."

In the summer of 1993, Dick Love, vice president and general manager of CSO Order Fulfillment and Manufacturing, asked Wade and a handful of other HP managers—Mark Milford, Madeleine Fackler and Doug Johnson—to step away from their jobs and join him on a mission. He wanted them to lead a re-engineering effort that would pluck the order-fulfillment thorn from CSO's paw. And this time it would be different.

"We'd put a lot of effort into fixing order fulfillment without accomplishing much and that was frustrating," Dick says. "I gave it a lot of thought and realized that you can't solve

something this complex when you have a demanding daytime job. You're too busy stomping out fires."

So Dick told Lew Platt, chairman, president and CEO, that he was prepared to reorganize CSO Manufacturing so he could devote most of his time to leading a re-engineering initiative. Lew nodded his assent, asking Dick to do whatever it takes to solve this vexing problem.

"Customers tend to be very happy with our people, our products and our support," Lew says. "But they are increasingly concerned about order fulfillment. I believe this is the most important initiative going on in the company today."

Dick returned to his office and fired off a voice-mail message that

Hogs

became the shout heard 'round the world. He spoke of his commitment to solve what had become his personal nemesis. He said he had "silver bullets" from Lew and from Wim (Roelandts, vice president and general manager of CSO), and that he intended to use them if he had to.

Literally hundreds of people responded to his call to arms.

"They all said they knew how important this was to HP and that they wanted to help," says Dick.

After studying recommendations from consultants and companies that had successfully re-engineered, Dick recruited his process team leaders.

"We're all in this boat together. Everybody has to row."

They represented the most logical approach to solving a worldwide, cross-functional problem that runs to the roots of the organization. Dick wanted to forge the factories (Wade), the field (Mark), factory marketing (Doug) and information technology (Madeleine). With this alignment, it was no longer somebody else's fault. Or somebody else's problem.

"We're all in this boat together," says Dick. "Everybody has to row."

The lead Hogs (see story on page 8), as they call themselves, scoured the world for team members. They wanted people with firsthand insight into the bottlenecks and frustrations of the current process. They wanted people from all geographies, all functions and all levels.



HP's Klaus Lang (right) confers with Lothar Drüke of Kuehne & Nagel about the Quickship program in Europe.

"We have different cultures represented, different attitudes, different kinds of jobs," says Sue Oliveira, who works on Wade's team in Roseville. "People from Germany, Japan, New Hampshire, Puerto Rico, Colorado, California. Everybody just walked in and left their egos at the door."

Why is CSO willing to risk its future on this re-engineering effort? Look at a sample of the problems that existed when CSO launched the initiative:

- unacceptably long cycle times for systems (measured from the initial purchase order to when the solution powers on)
- noncompetitive turnaround time for quotes
- ponderous paperwork filled with such oxymoronic offerings as "must-order options"
- indecipherable and inconsistent ways of representing products to customers
- million-dollar systems that arrive minus the \$30 cables that link them.

Skip forward to 1997 when the "future-state" process will be implemented. In this brave, new world, cycle time will have plummeted from 40 days in 1993 to less than five days. Mere seconds will elapse from the time an order is placed until it's acknowledged. Customers will browse electronically through a complete catalog of CSO products, represented in a way that they can understand easily.

House rules and hyphens

The Wall Street Journal does it. So do *Newsweek*, *MEASURE* and The Associated Press.

Business Week doesn't. Nor do *Fortune*, *Forbes*, *The Washington Post* or many other English-language publications.

What's at the center of this raging controversy? The noble hyphen. Some use it, some don't. Is it *re-engineering* or *reengineering*? It depends on what you're reading.

According to *The Associated Press Stylebook and Libel Manual*

(whose guidelines *MEASURE* follows), when adding a prefix to a word, "use a hyphen if the prefix ends in a vowel and the word that follows begins with the same vowel."

Unfortunately for admirers of consistency, The Associated Press stylebook is not the only guide in town. But as in poker, when in doubt, the house rules. For the record, the CSO Order Fulfillment Reengineering team is among the renegades who don't use a hyphen.

Using popular on-line services, customers can visualize custom solutions for their particular business problem. They can make decisions on price or availability based on real-time information.

Inside CSO, orders can be tracked easily from beginning to end. Changes can be made without disrupting the

Order fulfillment costs will have been slashed by as much as 30 percent.

process. A single point of contact can answer most customer inquiries or quickly hand them off to the appropriate resource anywhere in the world. As an essential bonus, order fulfillment costs will have been slashed by as much as 30 percent.

Many people are skeptical that this dreamy vision actually will occur. But this attempt is very different from previously proposed solutions.

"You'd think that after a year, people would start to get uncomfortable and question whether we can really solve a problem this big," Mark Milford says. "But I don't see that. I see the momentum building instead of wavering."

Unfortunately, the 1997 implementation is more than two years away. Fully aware of the need for immediate relief, Dick Love devised a three-phase approach that would keep customers hanging on until the re-engineering breakthroughs occur in the third and final phase. The first two phases, which began in the third



Boeing's Ric Hord (left) holds an impromptu meeting with HP sales rep John Renshaw (center) and district sales manager Pat McNiff inside the fuselage of a 747.

quarter of fiscal year 1993, marshaled resources for short- and intermediate-term solutions.

Named "Stop the Bleeding," the first phase was a brute-force effort to improve cycle time and on-time delivery, and reduce the turnaround time for quotations. Such Band-Aids as Configuration Support Centers were applied in the United States. Some inventory levels were increased. CSO Logistics labored hard to streamline operations and cut costs.

This application of pressure may not have stopped the bleeding. But it certainly slowed it down.

The second phase, which is still under way, aims at boosting CSO to a position of parity with the rest of the industry. It features such projects as Conquest, the long-awaited configuration and quotation tool that finally arrived in August; information-

technology improvement initiatives; and a concerted effort to deliver new products within 10 days of ordering.

Quickship in Europe is a sterling phase-two accomplishment. Launched in December 1993, Quickship married a third-party distributor, Kuehne &

CSO cycle time has dropped from 60 days in 1993 to its current average of 20 days.

Nagel, with a clever stocking strategy. CSO Europe selected about 230 mainstream products based on sales volume and technical completeness of the systems. A supply of these

JIM COLEY/THE BOEING COMPANY

Hogs

products is kept in stock and can be delivered anywhere in Europe within 10 days.

Through Quickship and other programs, overall CSO cycle time has dropped from a pinnacle of 60 days in

"I think you're absolutely on the right track."

March 1993 to its current average of around 20 days.

Although the effort has been intense and appreciated, a cycle time of five days or less is where CSO is heading. Continuous-improvement projects won't take HP there. Re-engineering will.

To ensure that the right issues are being addressed, about two dozen key customers and channel partners have participated from the beginning, offering insights into the ideal future state, evaluating the work in progress and validating conclusions.

"I think you're absolutely on the right track," says Ric Hord, director of materiel for Boeing Computer Services.

So, will this attempt finally allow HP to add the line "industry-leading order fulfillment" to the boilerplate describing CSO?

Dick Love is staking his 32-year HP career on it. Wade, Mark, Madeleine and Doug are risking their reputations. One hundred and fifty people are working at a fierce pace, intense as ants rebuilding a storm-damaged hill.

But can they do it? Brigitte Breton left her job as a successful district sales manager in Bad Homburg,



ANNE KNUDSEN

Dick Love used a ham-and-eggs analogy to explain the kind of people he wanted—committed people—for the CSO order-fulfillment initiative.

Calling all Hogs

Dick Love wanted a nickname for the re-engineering team he was forming. Inspiration arrived as he discussed the seeds of his plan with an employee audience. While describing the type of people he was looking for, an analogy popped into his head.

"With a breakfast of ham and eggs, the chicken is involved," said

Dick. "But the pig is committed. I'm looking for people who are committed."

A cause is just a cause without a memorable nickname. But you do need to be careful.

"I realized not too many people wanted to be called 'the Pigs,'" says Dick. "So I modified it a little." And a litter of Hogs was born.

Germany, and moved to the United States to join the team. She thinks so.

"I know we will have barriers and difficult times," she says. "But everybody on the program is 100-percent committed. If everyone continues to behave like we have the past 12 months, then we will be successful. I am sure of it." **M**

(David Price is communications manager for the CSO Order Fulfillment Reengineering Initiative. For more information on the project, call the Hogs Information Hotline at telnet 447-HOGS (4647).—Editor)



TANGENT PHOTOGRAPHY/L.P.

In the cellar of the Robin Hood Community Pub in Manchester, England, manager Legh Weaver examines a sample of Boddington Bitter—one of 5,000 pints he sells each week.

“We love them to bits”

By Harvey Gottliffe

Boddington, a U.K. company synonymous with beer and pubs, raises its glass in praise of HP systems.

MANCHESTER, England—Legh Weaver doesn't mind an occasional foray into the cool cellar of his 122-year-old Robin Hood Community Pub. There he checks out the lines that lead from the silver beer barrels to the taps upstairs. He would much prefer to be pumping one of the 5,000 pints of Boddington Bitter he serves each week to his Manchester pub regulars.

Legh and his wife, Ann, enjoy keeping patrons happy in their cozy establishment—so much so that in 1993, they were named Management Couple of the Year by the Boddington Pub Company.

Ever since the first beer was produced in a British pub some 12 centuries ago, brewers have tried to please their clientele. However, even

some of the best of breweries are gone due to mergers. Today, England's “Big Six” produce a preponderance of all beers. And with 70,000 pubs, each company tries to distinguish itself from the competition.

For years, its distinctive yellow and black umbrellas, coasters and beer cans easily set the Boddington Brewery apart. Founded in 1778, it was part of the northwest brewing industry until 1989, when it sold its manufacturing operation for \$50.7 million to Whitbread Beer Company, one of the “Big Six.”

That's when the Boddington Group plc decided to concentrate on the retail and leisure industries, and

Boddington

have Whitbread brew its beers. The Boddington Pub Company is Whitbread's biggest customer.

Whitbread beers account for the majority of sales at its 278 "managed" (company owned) and 197 tenanted (independently owned) pubs, and have made the Boddington Pub Company the most profitable of the group's four divisions. In 1993, the Boddington Pub Company began managing Henrys Table pub restaurants from the group's Hotel and Leisure Division, and has built family venues in serene country settings like The Moorings (see front cover).

The Drinks Wholesaling Division—with 30 depots—maintains a connection with the past, while the Leisure Hotels and Health Care divisions



HP's Tim Easton (right), who developed the account, and Lesley Lomax (center), who manages it now, meet with Boddington's Les Thomas at one of Boddington's 475 pubs.

TANGENT PHOTOGRAPHY/L.P.

A nice place for a bit of a giggle

Ah, the profound pleasures of the local pub. You can "have a bit of a giggle," "fancy a wet," eat, play and sop up local gossip. A British historian called pubs "the healthiest, most human and most characteristic of English institutions."

These revered institutions first appeared in the 8th century as extensions of private homes, as brewers attracted neighbors with quality beer. They became "public houses" and competed with churches as local centers to celebrate weddings, births or deaths.

Parliament started licensing "tippling houses" in 1522. To discourage tipplers from mistakenly entering a neighboring home, pictorial hand-painted signs were hung outside, since most people could not read. For those who could, Shakespeare and Ben

Jonson included pub settings in their writings.

In the 1700s, great breweries were founded, hurting smaller operations and home-brew pubs. By the early 19th century, the tied-house system emerged in which breweries bought and managed individual pubs. Today they comprise 85 percent of England's 70,000 pubs. The remainder are free houses owned by "publicans" who buy from any brewery.

That "publican" title often is shared by spouses, and while some pubs have been family-owned for generations, their numbers are declining.

London pubs used to encourage "the usual" by offering free (and salty) anchovies, red herrings and even caviar as thirst makers. Today, even crisps (chips) cost as patrons play dominoes, skittles (indoor bowling), draughts (checkers) and arrers

(darts). In 1495, King Henry VII became distraught when his men preferred darts in pubs to honing their archery skills. Gone are old-time games like Nine Men's Morris, Flinging the Wellington Boot and Dwile Flonking.

The pub is, indeed, a special institution. British Telecom's £5 phone card depicts a pub scene showing a cricketer's ball landing in a drinker's pint. The copy reads, "The British are great sports, so whether one plays cricket or not, one accepts that the ball...may indeed disturb one's pint."

Only occasional disturbances are allowed. The pub is still a retreat from life's aggravations, a place to gather with family and friends, and a home away from home.

Cheers!

—Harvey Gottliffe



Boddington's Bill Gosling and Les Thomas visit one of 30 Boddington "depots." The Drinks Wholesaling Division is Boddington's largest.

reflect Boddington's diverse approach for the future.

After selling the brewery, Boddington changed its approach to information technology. Les Thomas, information-systems manager, explains: "We made a strategic decision to move computing to a facilities-management contract. That allows each of our businesses to determine its computer requirements, based on business needs."

To replace its mainframe, Boddington assessed the hardware of most major vendors of open-systems equipment and in 1991 approached HP. "We're strategically a small team, so we buy third-party expertise," Les says. "As business needs changed, we wanted to be in an open-systems environment and came down on the side of HP."

Tim Easton, HP's account manager at the time, worked with his district manager, Norry McAllister, and Boddington settled on HP's 9000 business server as its open-systems platform.

"We felt that HP offered good system support," Les says. "The product

range had a good reputation and it allowed for growth rather than replacement. "HP had a proven track record of working in partnership with other IT suppliers, and the relationship was right."

Boddington has continued to turn to HP, acquiring HP 9000 Model G50 and 817S servers for payroll, accounting and teleordering from each pub to a Birmingham computer center.

Although HP is huge compared with Boddies, the relationship has worked because HP has given the feel of a small company with a personal touch and quick responsiveness.

"We were able to provide knowledge, technology and experience to help them through a time of rapid change, and did so by a partnership approach to the whole process," Tim explains. "We have been proactive with them. Our responsibilities are to look after them and be aware of business-development changes."

That attitude continued when Tim moved on to become a major account manager in 1993, and Lesley Lomax

took over. She phones Les Thomas every two weeks and meets with Boddington every two months. "That way, we learn what they may be doing over the next six months," Lesley says.

As part of Boddington's support contract, Les and his staff meet once a month with HP's Steve Goldstone, support accounts manager, reviewing any problems and developments. "There's strength in depth," Les says. "Someone in HP is an expert and responds to our requests, and I think of Steve as part of our technical team."

In each Boddington pub, a "Customer Charter" hangs on the wall and promises to deliver quality, service, value and choice. Boddington is pleased with HP's similar commitment to them, and Les describes the relationship best: "We love them to bits!" **M**

(Harvey Gottliffe is a journalism professor at San Jose (California) State University and head of the magazine department.—Editor)

Manufacturing looks ahead

By Betty Gerard

HP has moved away from doing all manufacturing in-house. Now the question is which core competencies are critical to maintain for success?

What direction is the time-honored function of manufacturing taking at Hewlett-Packard?

The one clear answer is that, at the moment, there is no single answer. Each of HP's diverse businesses continues to evolve its own strategy, based on its particular competitive environment.

Today, many stages in the production process are pooled among divisions or "outsourced": contracted to outside suppliers. The outsourcing of some printed-circuit assembly (PCA) has raised questions about how well HP retains its necessary competency in "interconnect": PCA, integrated circuits and printed-circuit boards, which all see some level of external contract manufacturing.

One impact of outsourcing may be the sale or closure of PCA as has happened in

Lake Stevens, Washington; Grenoble, France; and Boise, Idaho. Several fab shops also have been sold, in some cases to former HP employees.

Or the final stage of assembly now may take place at an HP distribution center rather than at the factory. This "postponement" means final configuration and localization is done closer to the customer, with improved delivery and better use of inventory. Final configuration might be done by a contract distribution center, as in Europe, or even by dealers or resellers.

The Personal Information Products Group (PPG) does "virtual manufacturing" with no products in evidence on the parent division's own factory floor. Manufacturing managers—David Fearnhead at the Grenoble Personal Computer Division, Tom

Cunningham at the Network Server Division (NSD) and Terry Pierce at the Roseville Networks Division—manage worldwide "supply chains" of activities that don't necessarily report directly to them. Materials handling, production and distribution are all done elsewhere.

The movement toward consolidation of manufacturing at HP began in 1987 in the Computer Systems Organization (CSO). Today, CSO Order Fulfillment and Manufacturing under Vice President Dick Love balances production among 10 computer manufacturing operations worldwide.

Other businesses have consolidated a part of their manufacturing processes at central sites. The Test and Measurement Organization (TMO), for instance, has centers for thick-film technology, surface-mount

assembly and other strategic processes that serve all its groups.

It's a long way from the old days when every HP division was a self-contained mini-company. At one time HP even made all its own screws—and they were the best screws in the world. Then the company decided that making screws, even superior screws, was not a "core competency" it had to have.

But as prices have risen for production equipment, and subcontractors become available who can meet HP's quality standards, there's been movement away from having to do everything in-house.

Has the pendulum swung away too far and too fast from self-sufficiency? While each business owns its own

HP even made all its own screws—and they were the best screws in the world.



In Singapore, APCD manufacturing manager Chiet Ping Chong (center) talks with managers Chin Chye Lim (left) and Chong Heang Lee.

manufacturing strategy, there are a few things that clearly must be coordinated effectively across business boundaries.

At the request of top management, the Manufacturing Council is wrestling with creating an overall strategy document that reflects common manufacturing values and identifies common areas that HP needs to invest in.

Council chair is Don Curtis, manufacturing manager for the Information Storage Group. "Every group's manufacturing strategy is slightly different," he says. "They're in different marketplaces, which require different business and financial models. Some are on the leading edge of technology while others deliberately trail behind as 'fast followers'—which means different models of investment."

Fashioning a companywide manufacturing policy will be a challenge. "One size does not fit all," Don says. Strategies vary with each business' emphasis—cost, time to market,

technical innovation, extremely high reliability or flexibility.

TMO, for instance, has its own technical resources to support a high mix of instruments produced in low volume, with frequent machine set-up time necessary. "What's a high-runner to us is peanuts to CPO," says Doug Scribner, Microwave and Communications Group manufacturing manager.

The Medical Products Group is highly regulated in the United States

"Every group's manufacturing strategy is slightly different."

to ensure the clinical efficiency and quality of products. Getting approvals is a lengthy process, both for HP and subcontractors. As John Browne, group manufacturing manager, says, "You can't move in and out of products easily in Medical."

The Analytical Products Group stresses innovation in chemical/mechanical processes, with a tight coupling of manufacturing and R&D.

That's also critical for the InkJet Supplies Business Unit, which produces in ultra high volumes the pens that go into HP printers. The proprietary technology is carefully protected, with minimum outsourcing and a heavy investment in automation.

Other CPO businesses, which emphasize time-to-market, cost and high-volume production, have their own pattern.

In Singapore, the Asia Pacific Personal Computer Division (APCD) does production for several PPG divisions.

A focused organizational team subcontracts PC assembly but keeps final assembly and test in-house along with related engineering, procurement and production control and planning.

APCD emphasizes flawless new-product introductions and transfers, and launches directly into manufact-

Manufacturing

turing in Singapore of products coming from labs of licensor divisions.

NSD's Tom Cunningham says the relationship with the APCD team is one of the best he's seen. "We're really tuned into one another's needs and looking out for each other."

An important discussion is going on within the manufacturing community about which common core competencies HP as a company should invest in and sustain. Production assets are expensive—how can the cost be shared among multiple users? Does HP have the right funding models for such inter-business cooperation? Leading-edge or industry follower? These considerations all play into business decisions about manufacturing investment.

Those who are uneasy about the trend toward outsourcing PCA point out that if certain capabilities are subcontracted and then needed in order to assure supply, it will be impossible to recover them quickly.

Businesses that stress innovation want to maintain ties between manu-

"Change can be exciting. It's rebuilding; it's re-engineering; it's renewing. And it's absolutely mandatory to move forward."

facturing and R&D designers. It is also hard to protect proprietary technology completely when outsourcing.

But fast-followers adhering to standards and open systems see resources tied up in making parts that can be bought outside at the same cost or cheaper, with similar quality. Staying on the cutting edge is not a high priority.



Larry Diehl heads LaserJet "postponement" at the North American Distribution Organization in San Jose, California, which does the final assembly and test of the popular printers.

One example of a centralized resource that is funded by multiple businesses is the Electronic Assembly Development Center (EADC) managed by Anita Danford within the HP Product Processes Organization (PPO). Businesses work closely with EADC in hands-on development of technology and processes to jump-start new product lines.

When HP manufacturing managers met in Boise in July, they heard keynote speaker Carolyn Ticknor, general manager of the LaserJet Printer Group, recount principles related to overall business success that were first articulated by Dick Hackborn, retired head of CPO: product contribution, time-to-market, leverage through partners, lowest cost structures and focus, with people the enablers of change and success.

"My challenge to you," Carolyn said, "is to build a manufacturing organization that's constantly obsoleting itself in its current format or structure in order to be successful in the industry."

"Change can be exciting. It's rebuilding; it's re-engineering; it's renewing. And it's absolutely mandatory to move forward."

The introspection by manufacturing leadership is expected to set some common directions for HP manufacturing, while allowing ample elbow room for the special needs of each business.

Bill Kay, director of PPO, paraphrases a quote from hockey great Wayne Gretsky to urge the manufacturing community to look ahead. "What makes a top player? It's the ability to skate to where the puck is going to be."

"Ask yourself where the puck is going to be for HP in three years." **M**

An HP ferry tale

GOUROCK, Scotland—"When God made time," the Scottish saying goes, "he made plenty of it."

And no company is more conscious of time than Caledonian MacBrayne, a shipping company that operates car and passenger ferries to the islands on the Firth of Clyde—the estuary of the Clyde River—and to the Western Isles. In fact, Cal Mac, as it is known, has a rigorous daily schedule, serving 23 Scottish islands from 52 ports.

What company helps Cal Mac maintain its smooth-sailing, on-time record? Hewlett-Packard.

"We've been using an HP 3000 computer system for 10 years for payroll and accounting," says Malcolm MacLeod, Cal Mac's information-services manager. "Now we have an HP 9000 server to link our 23 offices for reservations, ticketing, e-mail, catering, supplies and time sheets for payroll.

"The HP 9000 is central to our whole business. All of our port offices are like small work units. The HP system enables us to do far more with less paperwork because we can send information electronically to our headquarters here in Gourock."

Cal Mac's routes are as short as a 5-minute shuttle service and as long as a 7-hour-and-15-minute voyage.

The ferries actually serve as a life-line to some isolated outposts, carrying essential supplies to the islands and returning with livestock and produce to Scotland's mainland.

Each year, Cal Mac ferries transport 1 1/2 million cars and more than 6 million passengers. More than 95 percent of all voyages are completed on time.

Cal Mac sums up its dominion of the Scottish Isles with a parody of the 24th Psalm:



*The earth belongs unto the Lord,
and all that it contains, except for
the Clyde and Western Isles.*

They're Caledonian MacBrayne's. M

above

The Caledonian MacBrayne (Cal Mac) ferry Hebridean Isles sails into Uig harbor on the Scottish island of Skye. Cal Mac has been an HP customer for more than 10 years.

Ferry tale

CHUCK FOX PHOTOS



top

A young family takes the ferry MV Caledonian Isles to Arran. The Gaels called the Hebrides *Tir nan og*—Land of the Ever Young.

above left

The enormous mouth of the MV Iona opens to swallow cars for the trip from Mallaig to Armadale on the Isle of Skye.

above right

Sandy Smith (left), HP support account manager, meets onboard the ferry MV Jupiter with Malcolm MacLeod, Caledonian MacBrayne's information-services manager.

opposite page

A workman secures the MV Caledonian Isles under the close scrutiny of some young travelers—two of the 6 million passengers that Cal Mac carries each year.



Ferry tale

CHUCK FOX PHOTOS



above

Dutch travelers Ineke Vries (left), a teacher, and Bert De Boer, an artist, check their bearings during a ferry ride to some of the smaller Hebridean Isles, including Uig, Tarbert and Lochmaddy.

left

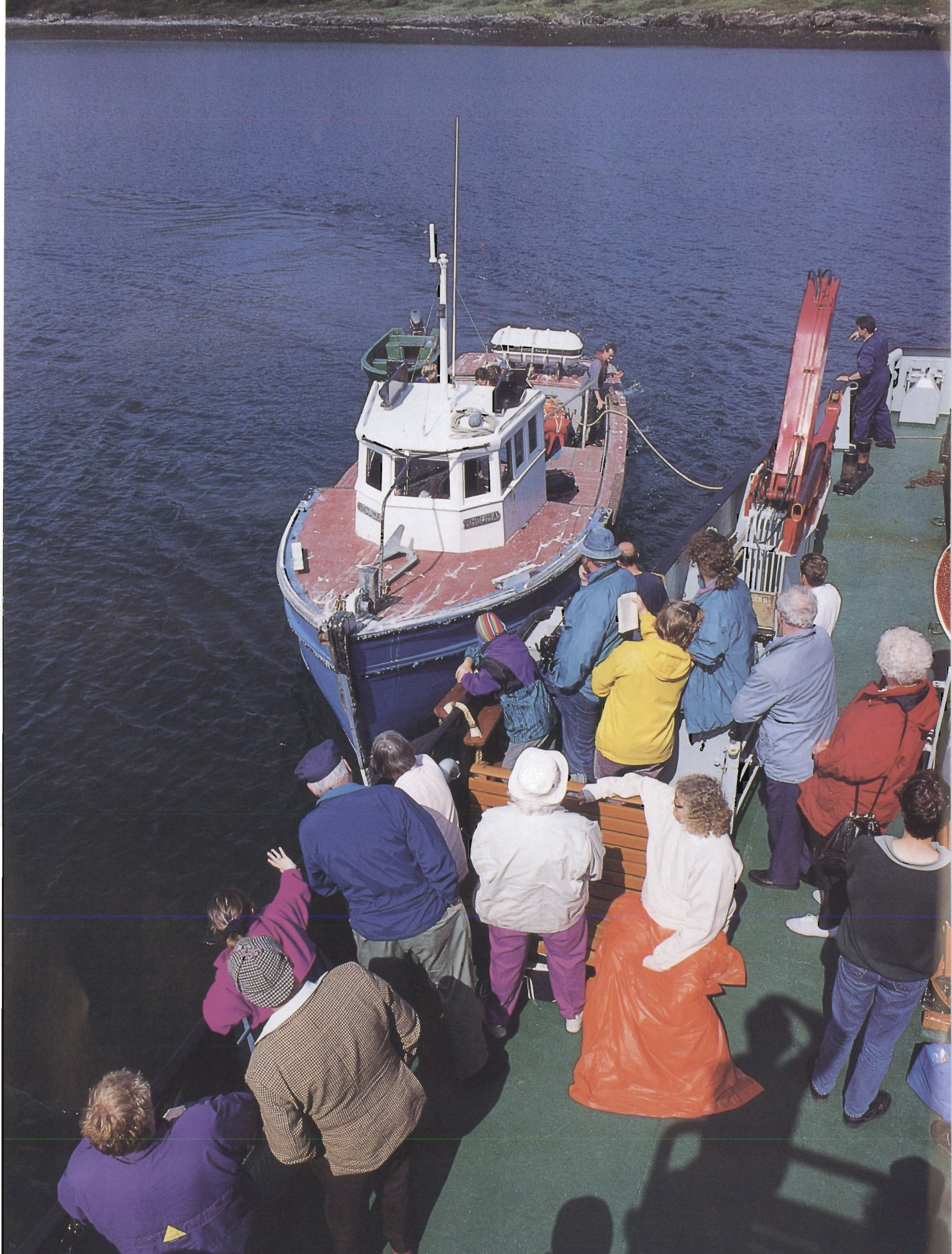
Second mate Peter Welsh uses HP equipment to adjust the ballast for even weight distribution aboard the MV Caledonian Isles.

left

Derek Johnson helps load essential supplies, including milk, bread and Bailey's Irish Cream, for the small Hebridean islands of Canna, Eigg and Rum.

opposite page

The harbor at the small island of Eigg is too shallow for large ferries, so passengers on the MV Lochmar hop aboard a tender for the short ride to the island.



Jumping the (Hoshin) hurdles

Happy New Year! HP began its 1995 fiscal year on November 1 with a familiar set of challenges, namely President and CEO Lew Platt's three Hoshin—or breakthrough—goals (see related story on page 26).

While they're companywide goals, the strategies for achieving them—and measuring success or failure—will vary from one business to another.

Here are the goals and how they've changed from last year.

Financial competitiveness

Goal: Grow sales and earnings per share while improving return on assets (ROA), consistency of quarterly results and profit balance across all businesses.

Change: The focus last year was on increasing our profit margin. This year we want to achieve consistent quarterly financial performance and avoid disappointing shareholders (many of whom are employees), as we often do, in the second half of the year.

Customer satisfaction

Goal: Achieve a leadership position in customer satisfaction and loyalty across all businesses.

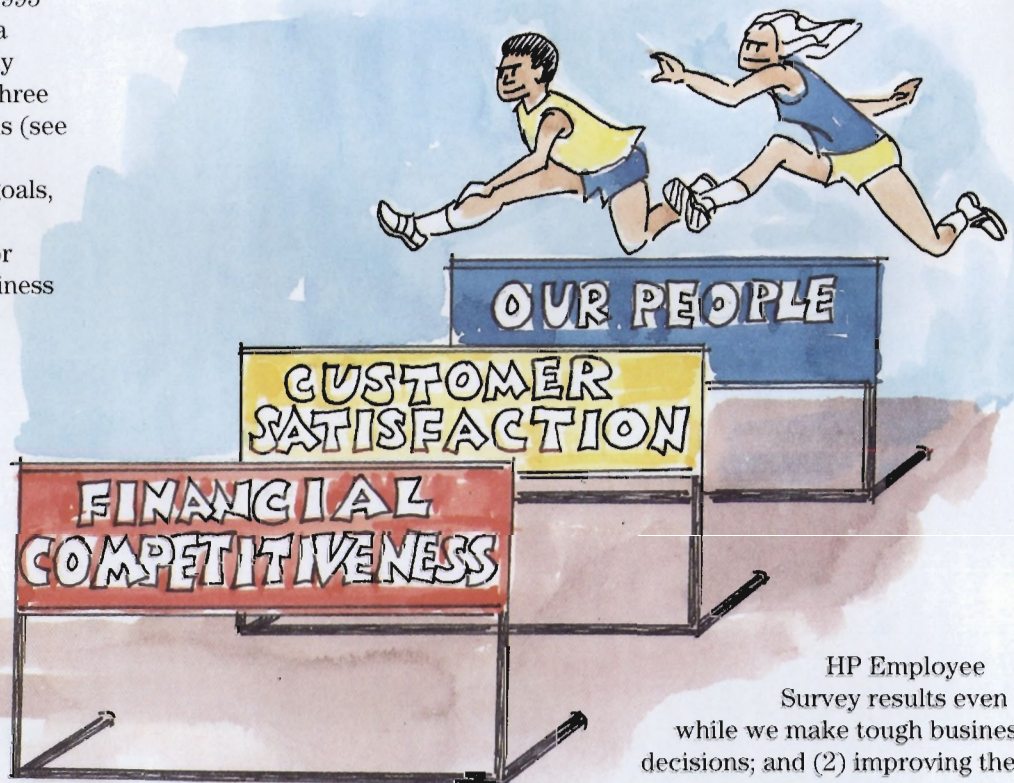
Change: Order fulfillment was last year's focus, but that is just part of responding to customers' needs and earning their loyalty. The stakes have

been raised by an ever-widening gap between what our customers expect and how we perform. The biggest challenge will be solving customers' problems that cross our organizational boundaries. And fixing order fulfillment "will require not just our attention but all parts of the company working together," Lew says.

Our people

Goal: Reassert HP's leadership as the best place to work.

Change: No change from last year. Focus is on two areas: (1) improving



HP Employee Survey results even while we make tough business decisions; and (2) improving the percentage of women and minorities in functional management and above.

While employee survey scores have improved in the last year, the upward mobility of women and minorities—especially in today's slow-growth environment—poses a challenge. "Clearly breakthrough thinking is required here," Lew says. **M**

(For more information on the 1995 CEO Hoshins contact your general manager.— Editor)

One man's garbage...

By Cornelia Bayley

David Hughes thought his dumpster rooting days were over—that is, until one fateful day last summer when he took out the trash and came home with an HP patient-monitoring cardiography system.

When he spied the instrument gleaming among the garbage, David, an electrical/biomedical engineer and computer scientist, knew that this was no ordinary trash. Says David, “I was amazed that it was fully functional—I plugged it in and it worked!”

The HP 1520A was one of the first medical products that carried the HP name after HP acquired the Sanborn Company of Waltham, Massachusetts, in 1961.

When a friend of David's, a chemist from the Eastern European country of

“I was amazed that it was fully functional—I plugged it in and it worked!”

Slovakia, saw his “find,” she told him that this HP instrument could probably be put to use in a hospital in her native country.

David decided to try to find an instruction manual for the instrument



David Hughes uncovered a life-saving piece of HP equipment—and a piece of HP history—when he discovered a patient-monitoring system in a St. Louis, Missouri, dumpster.

and ship the unit to Slovakia. The search for the service manual led him to Ron Mac Innis of HP's Medical Products Group's technical marketing team. A 33-year HP veteran, Ron worked for Sanborn before it became part of HP.

Ron now supports medical products that HP no longer manufactures. He was pleased to hear the plans for the salvaged equipment. “It was nice to know one of our old instruments could still be useful, even though it's not cutting-edge any more,” he says.

But the unit never made the trip. With Ron as sponsor, HP donated two patient-monitoring devices and all the accompanying cables, electrodes and service manuals to the cause. The crate containing the precious cargo was shipped to a hospital in Kospice, Slovakia, at no charge by FedEx.

So, whatever happened to the instrument rescued from the dumpster? It's found useful retirement in HP's historical-product collection in Palo Alto, California. **M**



From handling small change to running the \$400 million HP credit union, Al Dossola has had quite a career.

Where credit is due

By Gordon Brown

Retiring Al Dossola never lost interest during 25 years at the helm of the HP Employees Federal Credit Union.

Ask Al Dossola how he got started in the “banking” business and he’ll produce a shy kind of smile and say, “In grade school.”

That’s right. Because of his penchant for mathematics, his teachers asked him to collect the nickel and dime savings of his fellow students each week and deposit them in their names in a local bank. Today—at least until his retirement on November 30—Al is treasurer/manager of HP’s corporate-based \$400 million Employees Federal Credit Union.

Al exhibited a penchant for numbers even before schoolmates entrusted him with their nickels and dimes. He spent hours in his parents’ Menlo

Park, California, home mentally calculating changes in Major League Baseball batting averages within seconds of learning the latest stats.

Frankly, Al had hoped to become a professional baseball player, but never quite matched the physical requirements. So, in 1957, after college and military service, he listened carefully as a friend of a friend described the ambience and opportunities of working for a nearby company named Hewlett-Packard.

For a young fellow brought up in a family that prized time-honored virtues of loyalty and self-improvement, it sounded like a great place to get

started. In fact, before the end of his first year in fast-growing HP, Al was supervising more than a dozen people in the finance department.

About a dozen years later, the late Bruce Wholey returned to Palo Alto from Massachusetts with a recommendation that Palo Alto consider the startup of a credit union similar to that at the medical products division then at Waltham. The decision to do so was made in December of 1969, with the proviso that—if it was to carry the HP name—it must be operated in a safe, sound, and service-oriented manner. Dossola, then manager of administrative services, was asked to head the new organization. Its goal was to serve some 6,000 HP people and their families in the Santa Clara Valley.

Now, some 25 years later, what has Al Dossola wrought? People who have worked with him, either as C.U. staff members, directors or volunteers in various capacities, all have a very consistent viewpoint:

- Al has been the epitome of conservative financial management. Risk-averse is another way they describe him.
- Al has a relaxed and open style of working with people—not at all the image of the reserved banker.
- Over the years, the HP Employees Federal Credit Union has grown and prospered with exceptional consistency. In fact, according to George Newman, a C.U. director and retired HP treasurer, audits by the National Credit Union

Association have for years given the HP organization the highest quality ratings in every category.

Evidence for that is in the figures. In its first year, the HPCU grew to 2,000 members and \$750,000 in assets.

This past year saw it reach almost 53,000 members and assets of more than \$400 million. (These figures do not include other HP credit unions, specifically two in Colorado and one based in Andover serving the Eastern states).

Some of the success surely arises from the position that HP took early in Al's tenure when it decided that the credit union staffers would be HP employees. That kind of relationship is considered unique—almost all of the 10,000 or so C.U.'s in the United States are staffed separately from the common bases of people they serve.

The 90 or so HPCU folks feel they are part of the larger organization and perform accordingly. (HP's payroll and other costs are reimbursed from the C.U. revenues.) Many of them have stayed with the organization well past the HP average. Management staffer Loretta Shurr, for example, has been on the job since the 1970 start.

But it still comes down to that steady hand on the wheel. Quite a few C.U.s, for example, suffered nearly the same fate as savings and loan organizations. They took risks, particularly in the late 1970s, and then took a beating.

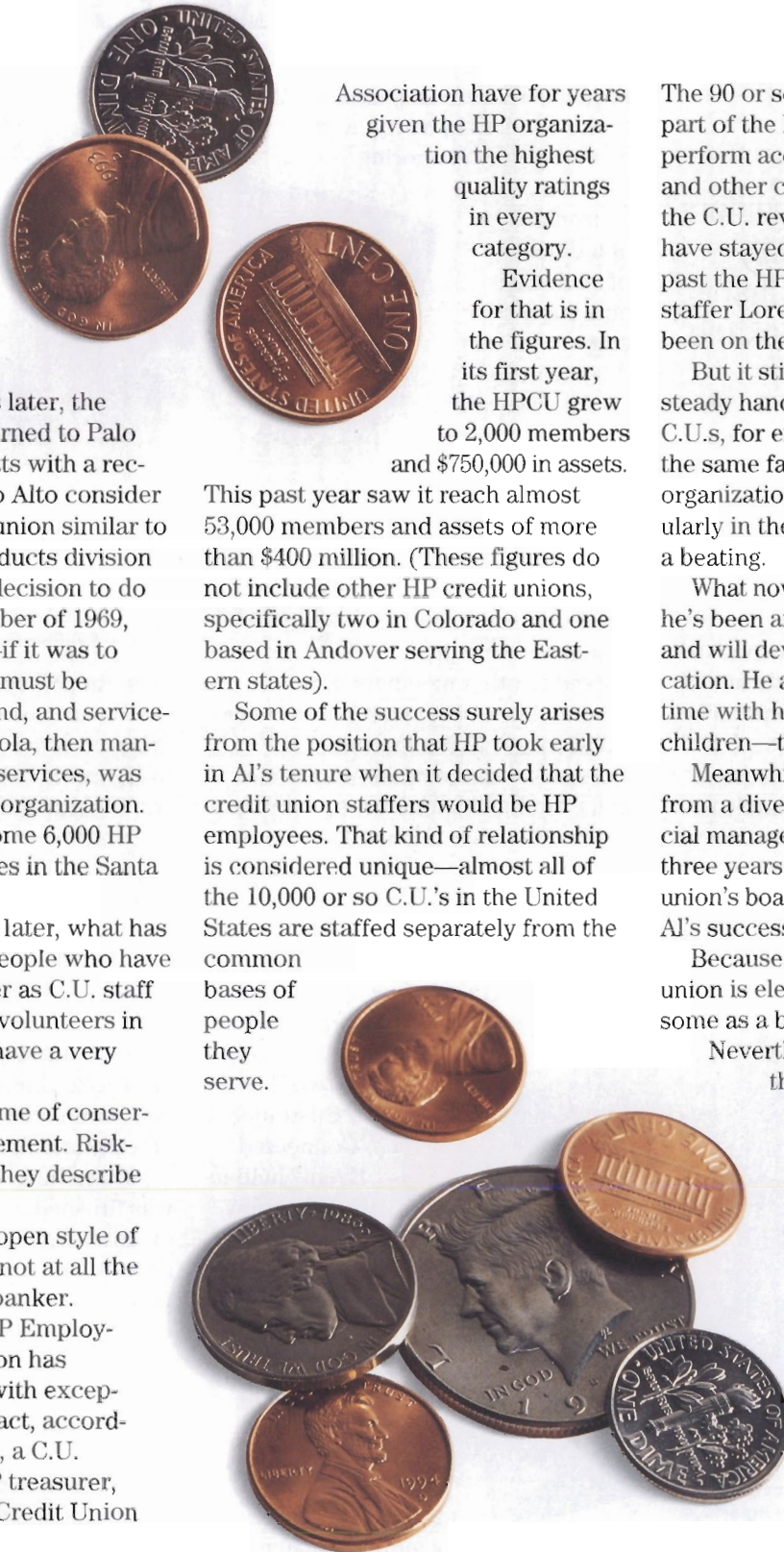
What now for Al—and HPCU? Well, he's been an active private investor and will devote more time to this avocation. He also plans to spend more time with his wife and their five children—two still in school.

Meanwhile, Steve Lumm has moved from a diversified career in HP financial management—including the last three years as president of the credit union's board of directors—to become Al's successor.

Because membership in the credit union is elective, it is considered by some as a benefit and a useful option.

Nevertheless, Steve continues to think of it along the lines of the former, and says he will continue to explore new ways of enhancing that quality—in a conservative mode, of course. **M**

(Gordon Brown, a Los Altos, California-based free-lance writer, is a former editor of MEASURE. —Editor)



The right connection

By Liz Wavada

Who are our biggest customers and competitors? What are our division's new technologies? Just ask employees in Spokane.

SPOKANE, Washington—When the Spokane Division (SKD) a few years ago presciently shifted its focus from defense to commercial business, at least one thing got simpler. The division now builds products with applications even a layperson can comprehend: testing cellular phones, pagers and other radio-frequency (RF) gadgets responsible for the turbulent—and very profitable—revolution in personal communications.

After years of producing esoteric RF boxes understandable mainly to those rare employees with their own satellite-tracking stations, SKD finally had products people could relate to—

products that are shaping the future of the wireless industry. And customers are clamoring for more.

Ironically, at a time of such enviable success, employees' confidence in SKD's future was waning, according to the most recent HP Employee Survey. They had watched as solid, older products; blockbuster, new products; and financial resources were disbursed to other members of the product line (Queensferry Microwave Division and Korea Instruments Operation) and to other Microwave and Communications Group entities.

The challenge taken up by a cross-functional team of SKD workers was to help employees at all levels get "connected" to the realities of today's marketplace.

After several months of planning, the project came together in mid-September, billed as a two-day "Customer Connected Event" held in the site's new Conference Center.

After a short tutorial, each group of 50 to 60 employees spent an hour rotating through five lively exhibit booths, with no presentation lasting more than 10 min-

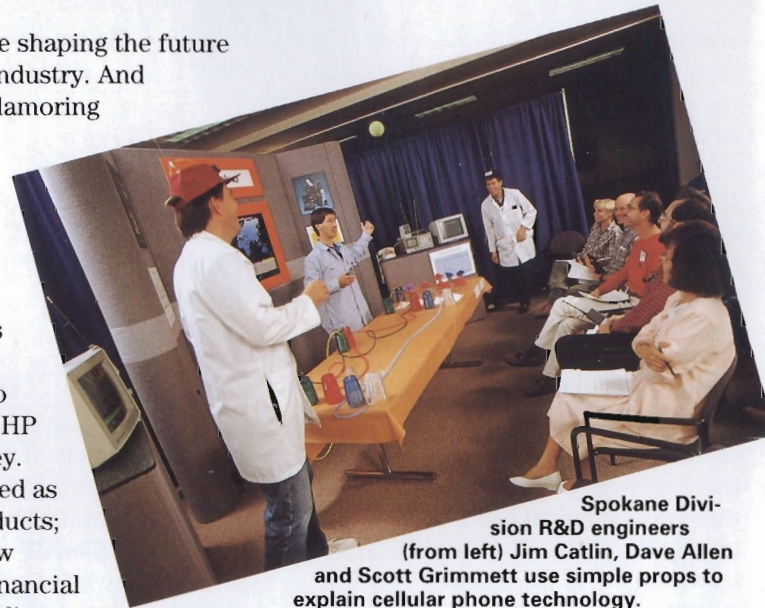
utes. Employees learned about top customers, the effect of long delivery times on orders, the main challengers to HP market share, new technologies and the transition from analog to digital formats.

One of the most popular exhibits featured SKD products side-by-side with competitors' products.

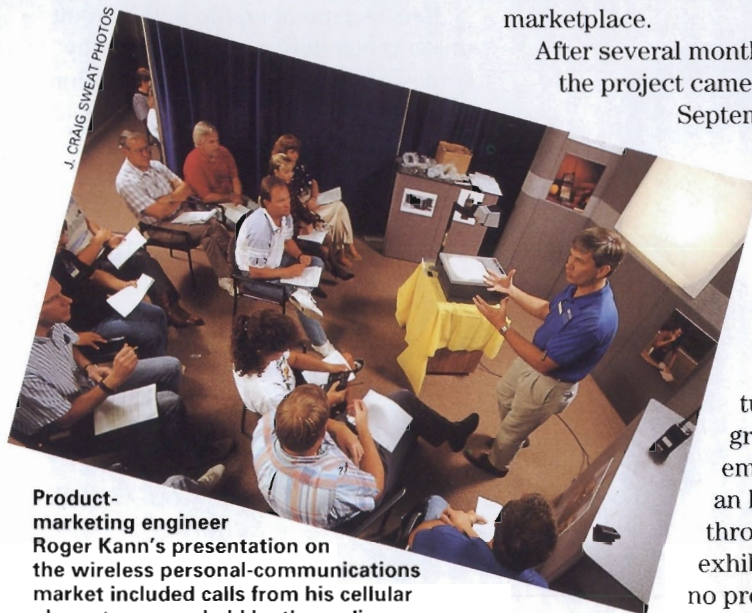
Organizers held drawings throughout the event, awarding free use and connect-time on cellular phones manufactured by customers such as Motorola, Ericsson and Nokia. This way, employees got connected—literally and figuratively.

When the last swing-shift session was finished, organizers were buoyed by attendance figures surpassing 80 percent and an approval rating of 99 percent. "Informative, fun and useful" were the comments most cited. The real payoff, organizers agree, lies elsewhere—in faster time-to-market, higher quality and quicker delivery. **M**

(Liz Wavada is the senior communications representative for the Spokane, Washington, site.—Editor)



Spokane Division R&D engineers (from left) Jim Catlin, Dave Allen and Scott Grimmatt use simple props to explain cellular phone technology.



Product-marketing engineer Roger Kann's presentation on the wireless personal-communications market included calls from his cellular phone to pagers held by the audience.

In praise of openness

Congratulations for the excellent article in the September-October *MEASURE*. "I'm losing my job" addresses that specific situation in an open and direct manner.

It is really a big deal for an in-house magazine to approach the subject so directly. I like it very much and so do a lot of my colleagues here in Germany.

BARBARA WOLLNY
Böblingen, Germany

It doesn't add up

Thanks for the article on financial terms (September-October). It's no wonder there's confusion when the "cost of sales" does not include the costs of selling.

JOHN BIRK
Santa Clara, California

I can see clearly now

Is the photo on the back of the September-October issue correct? I can see a post but no sign. Has the photo been cropped wrongly or am I missing something?

PETER GOSWELL
Bracknell, England

You're being a bit too literal, Peter. Webster's New World Dictionary defines "signpost" as 1. a post bearing a sign, or 2. a clear indication; obvious clue, symptom, etc. MEASURE had the second definition in mind.—Editor

A balancing act

I read with great interest the letter from Sue Stetak in the March-April *MEASURE* concerning the apparent imbalance in *MEASURE* stories featuring women.

A few months ago, I was struck by the very small number of HP women mentioned in either "New Hats" or "Chart Changes." I consider both of these highlights to be acknowledgment of significant management changes and promotions. I pulled out 10 old issues of *MEASURE* and started counting. The final tally: of 139 names mentioned, only five were women.

What does it mean? Perhaps nothing—or perhaps we are farther away than we acknowledge from having a gender balance in all levels of our workforce, and not just a balance in *MEASURE* stories.

CATHY WILLIAMS
Mississauga, Ontario
Canada

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).

Send comments to *MEASURE* Editor Jay Coleman (the fax number and address are on page 3). Please limit your letter to about 150 words, sign your name and give your location. We reserve the right to edit letters.

Aggressively cautious?

I couldn't help but find it ironic (or should I say confusing?) that in the same issue of *MEASURE* (July-August 1994) there was an entire article devoted to lauding Gary Eichhorn for his "aggressive" ideals and his opinion that "you don't get respect by backing down and being conservative," while, only 15 pages later, Lew Platt is quoted as saying, "I personally believe that in this industry, you're either cautious or crazy—and I prefer to place this management team in the former category."

So, which is HP? Cautious? Aggressive? Cautiously aggressive? And does that mean that being aggressive is only rewarded when it results in success? Would an attempt at being aggressive be considered "crazy" by top HP management until it was proved to be successful? Or was Lew's statement just a line for the security analysts?

People are looking for direction and vision from HP's top management. It's hard to sift through the mixed messages, and you can be sure that the managers in between—not being given one clear vision—are instead making up their own interpretations.

BETH GORELL
Santa Clara

Corrections

MEASURE apologizes for errors that appeared in the September-October edition:

The 1994 Deaf/Hard of Hearing Forum was held in Santa Clara, not Palo Alto; and David Higgins' name was misspelled in photo captions for the Rover story.

HP's chairman, president and CEO takes the mystery out of the CEO Hoshins and prepares employees for the next "pop" quiz.



Lew (far left) joined employees for breakfast recently at the Communications Components Division site in Newark, California, prior to an onsite Components Group review.

If you've ever attended one of my employee coffee-talk sessions—and I conducted several dozen during visits to HP sites during 1994—you know that I always make a point of quizzing employees on the year's CEO Hoshins—what they are and why they are so important to Hewlett-Packard.

I do this to show everyone that I'm serious about these yearly "breakthrough" goals and to see if that message has filtered down through the company.

And just like "pop" quizzes in school, the atmosphere sometimes can be intimidating.

That's why I'd like to devote this letter to the subject of CEO Hoshins—why HP believes in this approach, why Hoshins give us an advantage over some of our competitors, how

well we did during 1994 and what's ahead for the 1995 fiscal year that began November 1.

Many of you know that Hoshin merely is the Japanese word for breakthrough. Achieving a Hoshin goal doesn't just mean that you work a little harder. It's a huge, multiyear hurdle that takes a companywide effort and often involves a new—even radical—way of attacking a problem.

Hoshins help you focus on a short list of priorities. Instead of a lengthy list of 10 or more goals, you zero in on as few as three or even one. Many companies today are learning the lesson of focus; we've used this approach successfully for several years.

For the past two years, I've determined the Hoshin goals with the help of the Planning and Quality Commit-

tee. The 1995 Hoshins (spelled out on page 20) are significant because the entire Management Staff helped decide on the list. They truly represent the feelings of the full staff.

So how well did we do in 1994? Let's take the three Hoshins one by one:

- Financial competitiveness. We set out in '94 to increase HP's profit margin and to improve business balance while significantly improving asset management.

We did a good job of increasing profit margins and improving the balance among businesses. Still, asset management—particularly controlling our inventory—was a disappointment. You'll see a continued focus on this in 1995.

- Order fulfillment. Our 1994 goal was to achieve an industry leadership position in HP's order-fulfillment process—the string of events from the moment customers place an order until the equipment is delivered and paid for.

Again, overall we did a fine job of analyzing the problem and proposing short-term strategies to fix critical problems and long-term strategies to achieve real leadership. Because of this progress, you'll see that our focus is shifting for 1995.

- Our people. We wanted to reassert HP's leadership as the best place to work.

The most positive result was that we gave a lot of attention and visibility to just what the HP way is, and the management team worked hard to

address the concerns that were evident in HP Employee Survey scores.

As far as diversity is concerned, I've seen an improvement in managers' understanding of the importance of hiring and promoting a diverse workforce, and working with minority vendors and partners. People are realizing that it's not just a social

...all employees should be able to see a thread that runs from their organization up to the CEO level.

responsibility or something imposed by a government; it's good business. While the numbers have improved, they're not as dramatic as I'd hoped.

What's new for 1995? You can read about the changes on page 20, but let me comment on each of the three Hoshins:

- Financial competitiveness. The emphasis still is on managing our assets well and achieving good profit margins. There's a new emphasis on the consistency of our quarter-to-quarter results.

- Customer satisfaction. Order fulfillment is only one of the many ways you measure customer satisfaction. We need to expand our perspective to maintain our lead in customer satisfaction.

- Our people. The changes here aren't particularly significant. We want to

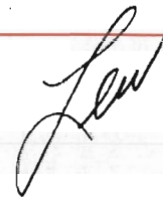
continue to recognize the importance of work/life balance and to work harder to address diversity issues. Clearly, our work isn't finished on this CEO Hoshin.

There's also a significant shift in how we'll use the Hoshins in 1995: The Hoshins don't apply uniformly to all organizations, so each organization can decide if the Hoshins are an issue for them and, if so, how they're going to address the problems.

"Financial competitiveness," "customer satisfaction" and "our people" may not roll off the tongue easily or immediately, but all employees should be able to see a thread that runs from their organization up to the CEO level. Your manager may have a different label for your 1995 goals, but there should be a link that connects the entire company.

Those are my top priorities for the year. I hope that you see their relevance to your own job and your goals for HP in 1995.

Now, who's ready for a pop quiz?



LAURA PAGE/LOVELAND REPORTER, HERALD



A diligent reporter used these photos to track down Tom Feldkamp (right), who lost his camera while visiting Jim Armentrout in Japan.

Putting theory into practice

PHILADELPHIA, Pennsylvania—Many university engineering students spend as much as three years learning about theory before they ever touch any hardware. At Drexel University here, they get a class assignment on their first day: Design a bridge.

Under a program begun five years ago, first- and second-year engineering students spend at least three hours a week in Drexel's high-tech engineering lab, which is fully equipped with HP test-and-measurement equipment.

"Our freshmen know how to use oscilloscopes,

signal generators, amplifiers, power supplies—they're very technically sophisticated," says Robert Quinn, Drexel engineering professor.

The professor also has seen a 50 percent improvement in student retention rates because "kids (used to) quit before they found out what it's truly like to be an engineer," he said.

It was a Kodak moment

In a busy American airport, a dropped camera might have found its way to a trash can but never back to its owner. Not so in Hachioji, Japan, a busy suburb of Tokyo.

In June, HP Loveland's Tom Feldkamp was visiting former Lovelander Jim Armentrout at the HP plant in Hachioji. Dashing to catch a train, Tom dropped his disposable camera, which contained sightseeing pictures. He never expected to see them.

Tom forgot about the camera until Jim came to Loveland in August for a management meeting. Jim asked Tom to tell the camera story to the group, then surprised him by flashing

one of Tom's photos on a projector screen.

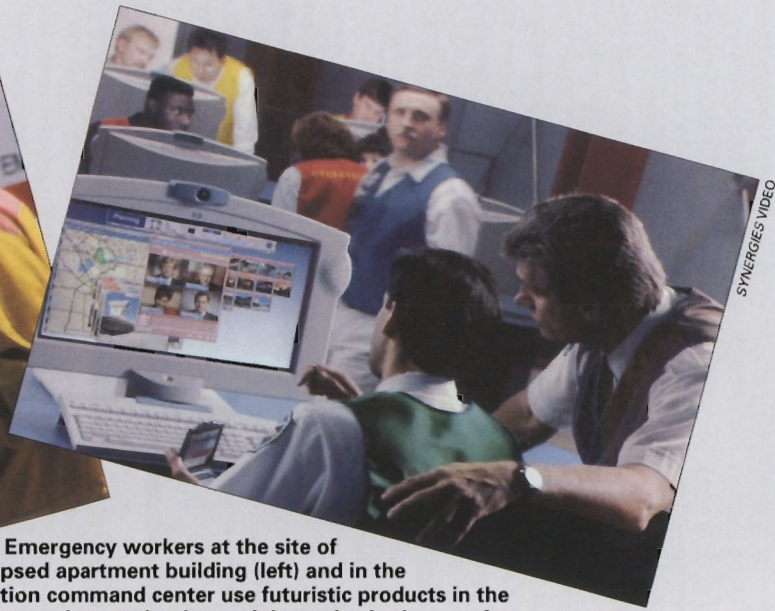
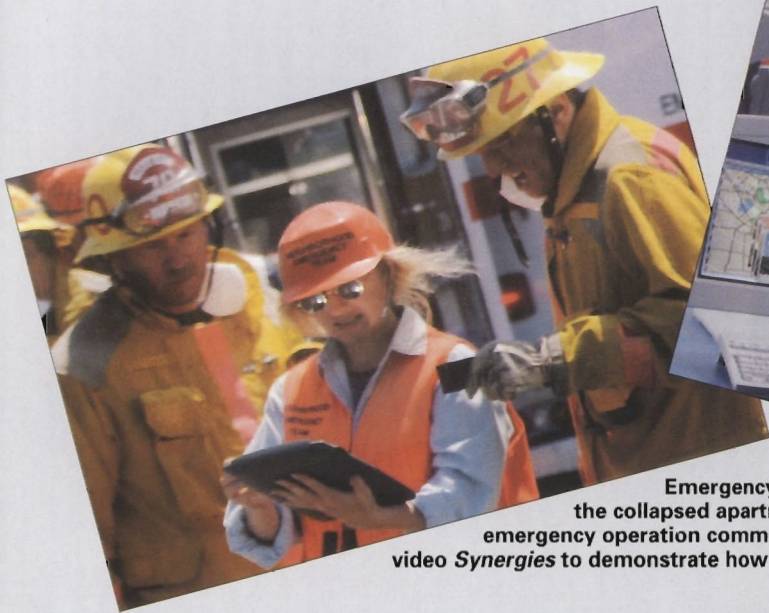
Someone found the lost camera and turned it in to a newspaper, which processed the film. One photo showed Jim seated at his desk with the name card of his secretary, Rie Sumatsu, clearly visible in the background. A reporter called the HP plant in Hachioji and located Jim.

Jim repaid the kindness with a letter of thanks to the newspaper and a \$50 gift certificate to a popular store in Japan.

(Thanks to Jim Willard, public relations manager at HP's Loveland, Colorado, site, for this story.—Editor)



Drexel University Engineering Lab Manager Wayne Hill (right) and HP sales engineer Kevin Gillespie examine the HP-equipped lab.



Emergency workers at the site of the collapsed apartment building (left) and in the emergency operation command center use futuristic products in the video *Synergies* to demonstrate how technology might evolve in the next few years.

SYNERGIES VIDEO

A jolting look at the future

A pre-dawn earthquake jolts metropolitan Los Angeles, California, in the year 2001.

Rescue workers use more than 50 technologies or products—some quite futuristic—to handle the emergency.

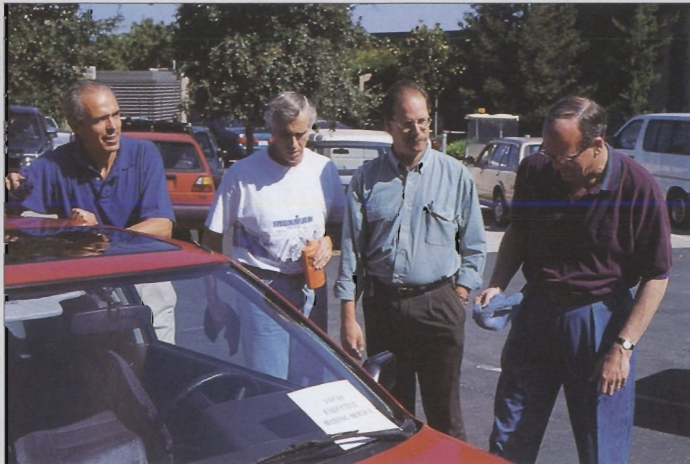
The dramatic scene captures the essence of *Synergies*, a new video from Corporate Marketing Communications. The video—part of the Project 2000 campaign—shows what's

technically possible and probable in the next five to 10 years, and the role HP might play.

While the video is aimed primarily at customers and potential customers, it's

available for employee viewing, too. If you're interested in seeing the video, contact your general manager.

CHUCK FOX



Gary Geer (third from left) inspects the handiwork of "3 Guys Executive Waxing Service"—a joint venture by (from left) Bob Wayman, Jack Brigham and CEO Lew Platt.

A fund-raiser that shines

Some of HP's top executives, including CEO Lew Platt, literally took a hands-on approach to support the annual United Way fundraiser at Corporate Offices in Palo Alto, California, in October.

Lew, Bob Wayman, vice president of finance and administration, and Jack Brigham, vice president of Corporate Affairs and HP general counsel, formed the tongue-in-cheek "3 Guys

Executive Waxing Service" and waxed eight employee cars during a lunch period. The proceeds they raised went to the local United Way campaign fund.

How well did the "3 Guys" do in the car-waxing business? Gary Geer, a facilities specialist whose car got the executive touch, joked, "I'm glad they make their living as HP executives."

CSO CHANGES

The Computer Systems Organization (CSO) has named **Rich Sevcik** as general manager of the Systems Technology Group, which retains its present entities. CSO staff functions of Corporate Alliances under **Jim Bell** and Strategic Alliances under **Jim McCabe** now report to Sevcik.

V.P. **Wim Roelandts** will serve as acting manager of the Systems and Servers Group (SSG) along with heading CSO. SSG's former Cooperative Computing Solutions Division has ceased to exist as an entity and its activities have been reassigned within the group.

CSO has formed a new Systems Component Group under G.M. **Carl Snyder**. It comprises the Panacom Automation Division (formerly part of the Workstation Systems Group) and the System Peripherals Operation (from SSG).

The Workstation Systems Group has restructured. Chelmsford, Massachusetts, becomes the marketing center and its R&D labs are moving to Fort Collins, Colorado, and to Corvallis, Oregon.

EUROPE CHANGES

To raise HP's profile and involvement in Europe, Senior V.P. **Franco Mariotti** has taken on a new strategic role that will include the lead in HP's participation in development of the European Information Infrastructure.

V.P. **Franz Nawratil** has assumed operational responsibilities as Managing Director-Europe.

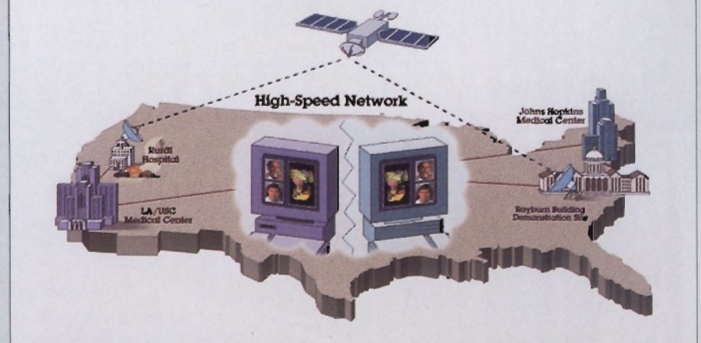
Bill Russell to G.M., CSO sales and marketing-Europe.

MEDICAL CHANGES

In the Medical Products Group, the Clinical Systems Business Unit no longer exists. Two new divisions have been formed:

- A Patient Monitoring Division under G.M. **Jim Cyrier** combines Monitoring Systems and Perinatal/Anesthesia Care divisions.
- A Healthcare Information Management Division under G.M. **Jeff Langan** includes Clinical Information Systems and Health Care Re-engineering.

National Information Infrastructure Testbed Healthcare Application



HP helps power a medical milestone

WASHINGTON, D.C.—Members of the U.S. Congress and the media got a glimpse into the future of medical information technology—with help from HP—during a demonstration here in September.

The National Information Infrastructure Testbed (NIIT) displayed the first medical network that integrates high-speed fiber communications and satellite transmission to test a real example of telemedicine.

In the demo—run on HP workstations—a woman vacationing in Southern California is badly injured in a car accident. First treated in a rural hospital, the woman then is transported to the University of Southern California Medical

Center in Los Angeles. The center accesses her medical records and consults her personal physician at Johns Hopkins Medical Center in Baltimore, Maryland.

Several of HP's Medical Products Group employees assisted with the demo in the Sam Rayburn House Building. Retired HP Vice President Ben Holmes was among industry leaders and physicians who answered questions afterward.

HP was a co-founder of NIIT, and Bill Murphy, director of the Computer Systems Organization's Global Accounts Program, chairs the NIIT board of directors.

ISG CHANGES

The Information Storage Group (ISG) has split the former Storage Systems Division into a reorganized division by the same name (to focus on disks and arrays) under G.M. **Bruce Huibregtse**, and a new Storage Systems Operation (optical libraries).

Bob Tillman has been named G.M., Disk Memory Division.

ISG announced the discontinuance of 20MB and 40MB HP Kittyhawk 1.3-inch disk drives.

NEW HATS

John Young, retired HP CEO, to co-chair of newly formed President's Committee of Advisers on Science and Technology.

Scott Stallard to G.M., Network Server Division.

GETTING TOGETHER

HP has established a joint venture in Jakarta, Indonesia, with P.T. Berca Indonesia to provide professional support and services.

Stephen Yeung heads P.T. Hewlett-Packard Berca Servisindo (informally, HP Berca Servisindo).

HP and Sybase Inc. have formed a very large database (VLDB) engineering lab, based at two sites, for integration of HP 9000 Series 800 business servers with the Sybase SQL Server to create hardware/software environments capable of handling terabyte-class databases. The two companies also announced an alliance in which they will jointly provide service and support to Sybase's workgroup-level customers.

HP has acquired Versatest Inc., maker of semiconductor test gear for flash memory devices, as part of the Test and Measurement Organization.

PA-RISC GRAPHIC

To increase the visibility of PA-RISC, the advanced processor technology that powers CSO



products, a new logo is appearing on PA-RISC-based products and their packaging, ads, and promotional material.



KAREN FREUSS

Betsy Brazy's photos-on-fabric creation, printed with an HP DeskWriter 560C printer, is a one-of-a-kind heirloom quilt.

New use for HP printer material-izes

ALAMEDA, California—Betsy Brazy calls it a natural melding of the computer and the sewing machine.

Most people would call it amazing.

Betsy, an Alameda, California, quilter and freelance writer, used an HP DeskWriter 560C printer to create a one-of-a-kind quilt that includes 16 color photographs printed right on the muslin fabric. The quilt was a birthday gift for Betsy's 90-year-old grandmother-in-law.

"Some people don't realize just what it is when they first see the photos on the quilt," Betsy says. "Then they're amazed that you can do this with a desktop printer."

Betsy created the heirloom by scanning photographs into her computer. Then she used Adobe Photoshop software to manipulate some of the photos. For example, she changed her father-in-law's shirt from white to blue.

When it came time to print the photos on fabric, Betsy used her secret trick: freezer paper, trimming the paper to 8 1/2 by 11-inch pieces and ironing the fabric onto the paper. Then she ran the paper through the HP printer.

The centuries-old art of quilting definitely has joined the computer age, Betsy says. She's an active participant in electronic quilting discussions through America Online.

Three little bandits

ANDOVER, Massachusetts — Lorna Wolf has taken thousands of photographs during her six photo safaris in Africa, but one of her favorite photos occurred just a few yards away from her office here.

“Three little bandits” captures the innocence of a family of raccoons that lived in a tree on HP’s Andover site about three years ago.

“I call it the Walt Disney Tree,” says Lorna, an order administrator in the field support center. “The tree has huge holes that make you wonder how many ‘critter’ families have made their homes there.”

Sadly, the mother raccoon met an untimely death, and the local animal rescue league came to get the three bandits and their two siblings. Fortunately, Lorna snapped the photo before the raccoons left.

Lorna shot the photo using a Minolta Maxum 7000 camera with an 80-200 zoom lens.



Lorna Wolf couldn't resist snapping this photo of the “three little bandits” who made their home in the “Walt Disney Tree” on HP’s Andover, Massachusetts, site.

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name and information about the photo.

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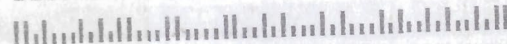
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