

A magazine for Hewlett-Packard people

July-August 1994

MEASURE

**The sweet smell
of success**



My first experience with interactive television came during the mid-1950s. I was a sick, asthmatic child who spent hundreds of hours watching TV.

Not just *watching* TV; I interacted with it.

When the bad guys in the black cowboy hats were about to ambush the Lone Ranger, I shouted a warning. My warnings never seemed to help him, but I was convinced that someday I would save him from certain doom.

When Perry Mason grilled the suspect on the witness stand, I verbally offered my own cross-examination. My legal record in front of the TV was a big reason I chose a career in journalism and not law.

Later, when the *Jeopardy* contestant missed an easy question, I chuckled out loud. I had given her the correct answer moments earlier, but she ignored it.

My interactive TV career continued in the mid-70s when I worked as a sports writer at a Phoenix, Arizona, newspaper. Home was a one-room apartment called a studio. ("Studio" is a real estate term that means claustrophobic box.)

My job ended somewhere between midnight and 1:30 each morning. I would go to sleep promptly at 3 a.m.—Arizona didn't have all-night TV in the "old days"—and wake up at about 10 a.m. Often, I wouldn't speak face-to-face with another human being until I reported for work at 3 p.m. But I'd had an active, or more accurately, *interactive* relationship with TV for hours each day.

Today, interactive TV has entered a new dimension (see the story that

begins on page 18), and HP is becoming a budding expert.

Soon, I won't have to go to see Ravi at the local video store to rent the latest video release. On-demand video will mean that I can see virtually any movie I want when I want to on my TV screen. Even the term "on demand" caters to the "couch potato" in many of us; we don't just *want* the video, we *demand* it.

We won't have to yell at the game-show host or coach while watching a sporting event; we can punch in the correct answer or play on a remote-control device that does everything except make ice.

Don't want to fight the crowds at the malls? Just watch the fashion channel, review the latest styles and order the clothes through your TV for fast delivery.

Do consumers really want to interact with their TV? Or would they rather be informed and entertained without participating? Research indicates that about 70 percent of U.S. households (26 million out of 37 million) represent a "core" or "next" market.

Will interactive TV lead to a more sedentary, culturally deprived society, or will it open more doors for imagination, learning and opportunity? I think the latter.

Researchers indicate that the interactive TV market will be a \$6 billion industry with 40 million subscribers soon after the turn of the century. Will HP become a major force as its potential suggests?

Stay tuned.

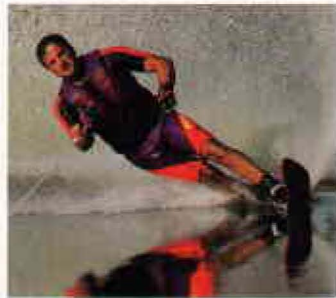
Jay Coleman



On the cover: Caroline Waxin, an employee of the world-famous Guerlain perfume manufacturer in Paris, takes a whiff of Shalimar—one of the best known fragrances in the world of perfumes. Photo by Anne Knudsen.



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For the past decade, it seemed Japan Inc. could do no wrong. The Toyotas, Sonys and Mitsubishis grew to dominate their industries worldwide. Then a global recession hit Japan particularly hard, forcing companies to make uncharacteristic moves: closing plants, cutting work hours and laying off workers.

Like its U.S. parent, Yokogawa-Hewlett-Packard (YHP) has escaped the worst of the economic downturn. Today, despite a continuing sluggish economy, YHP is making

All the right moves

By Brad Whitworth

The lingering recession is forcing Japanese companies to rethink their traditional ways of doing business. Automakers Honda and Isuzu are now selling each other's cars. Nissan is closing its Zama factory in 1995 because it has too much manufacturing capacity. NTT (Nippon Telegraph and Telephone) plans to shrink its payroll by 30,000 people (13 percent of its work force) in three years.

While such moves are tame compared to the layoffs, mergers, downsizings and "decruting" at work in the United States and other Western countries, it's unusual to see Japanese companies break long-standing traditions like lifetime employment.

Although the United States seems to be climbing out of its economic gloom, most economists don't see a quick end to Japan's woes. Many predict that annual growth for Japan's gross domestic product won't surpass 3 percent in the near future.

Japanese business executives are equally pessimistic. In a Kyodo News Service poll of top officials in 100 companies, 9 percent predicted the economy will continue to shrink, 13 percent saw no growth at all and 35 percent predicted growth of no more than 1 percent.

Yet last year Yokogawa-Hewlett-Packard (YHP) finished its 30th year in business with a healthy 16 percent increase in sales, leaving most of its Japanese competitors far behind. Why has YHP been successful at a time when so many other Japanese companies have been hurting?

Part of the good fortune must be attributed to market successes: the right products at the right time. For example, the Computer Systems Organization (CSO) has been pushing "mainframe downsizing" at a time when large Japanese companies are trying to trim their operating expenses, including those in information technology.

CSO has won big deals from companies like Fuji Bank, Japan Air Lines and 7-11 Japan as those firms transfer their computing operations from large, expensive mainframes to new client-server architectures. "Our customers don't always know how to make a successful migration from the mainframe," says Katsuto Kohtani, YHP's president. "So we're really building our consulting and support business and involving third-party firms to help them make these moves."

YHP has held a number of seminars on computer downsizing and attracted high-level executives who come away excited about HP's solutions.

Companies are hungry for solutions to improve office productivity. While Japan has developed some of the world's most efficient manufacturing plants, it has done little to battle inefficiency in the office. Lifetime employment programs and hierarchical organizations based on seniority define the bureaucracies you find in typical Japanese firms.

Despite the country's ability to develop and market high-tech products, the average Japanese company has been slow to put communication technology to work in the office. A Japanese Ministry of Posts and Telecommunications study reports that you're almost three times more likely to find a personal computer in an average U.S. office than in a Japanese office. Those Japanese PCs are more often standalone units, too. Just 8.6 percent of Japanese PCs are hooked to LANs while in the United States, the figure is 52 percent.

In the boom times of the late '80s, white-collar productivity wasn't important. In today's lingering recession, Japanese companies are looking hard at ways to increase efficiency.

That search for productivity explains much of the success of the Computer Products Organization (CPO) in Japan. Localized DeskJet and portable DeskJet printers have sold very well in the Japanese marketplace, supported by innovative advertising on television, in magazines, in newspapers and on train platforms. Computer dealers feature HP printers prominently in their cramped shops, often stealing precious display space from such top-selling Japanese brands as NEC, Fujitsu and Toshiba.



Japanese consumers have trimmed much of their personal spending during the country's lingering recession. Fortunately, HP's DeskJet printers have been setting sales records.

The Test and Measurement Organization (TMO) also has come through the recession strong. They've followed a model that they've used elsewhere in the world: slim the organization, focus the business and streamline the operations. TMO's managers launched surveys and studies to learn more about their markets. They found that the semiconductor and communications industries were booming in Japan. So TMO focused its efforts on

these fast-growing areas. The result: TMO's Japanese orders are more than 30 percent higher than last year's.

Although TMO headcount was shrinking in both the Japanese sales and factory organizations, YHP was in the fortunate position to offset the downsizing by shifting people to the faster-growing CPO, medical products and customer support organizations.

One of the most profound changes in Japan is its increasing openness to

Moves

the rest of the world. For more than 2,000 years, Japan was almost totally isolated. Until the late 19th century, the country, its people, its customs and its language were "off limits" to

"We need to take the mental borders out of our operations."

gaijin (foreigners). Japan developed ways of doing business that bore little resemblance to methods used in other parts of the world.

Since then, the country has shifted to an export-driven economy and Japan relies heavily on its connections to the rest of the globe. Today Japan imports almost all its oil and most of its food. It exports everything from autos to electronics.

There are increasing cultural links with the rest of the world. The Japanese people have embraced non-Japanese holidays like Halloween and Valentine's Day. And if you listen carefully, you'll hear English words as a regular part of the Japanese vocabulary—words like *aisukurimu* (ice cream) and *konpakuto disuku* (compact disc).

YHP is on the same trend line. It's out to change from separateness to singleness with the rest of Hewlett-Packard. For example, the YHP logotype is disappearing from sales literature, trade-show booths and advertising, and is being replaced by the HP logo.

"When the YHP-Nissan racing car competed in the 24-hour race in Le Mans, France, in 1989, we had to explain to curious race fans who we were," says Ron Soyama, YHP public

relations manager, "The French knew about 'HP,' but not 'YHP.'"

At the time Yokogawa-Hewlett-Packard was formed in 1963, foreign firms could not hold majority interest in a joint venture company. So YHP got its start with Yokogawa Electric Works owning 51 percent of the new operation and Hewlett-Packard holding 49 percent. Following a change in the law (and recognition of HP's increasing management contribution to the joint venture), HP increased its equity to 75 percent in 1983.

The shift toward a more HP-focused organization goes far beyond the name on a race car or the equity percentages in the joint venture. It extends to systems and programs and policies.

"YHP has long had a separate order-processing system because we believed that we needed a local system that could handle Japanese characters and the unique Japanese customers' purchasing systems," says Katsuto. "Today, the company is investing millions of dollars to engineer a new order-processing system. We would have to spend millions of dollars of local funds to develop a

new YHP solution. It's better that we send YHP people to headquarters to build Japanese needs into a centrally developed system. It's also a plus that local language problems have been solved with today's HP computer architecture.

"If we don't have the same system, we won't be able to get comparable information here. We can't afford to fall behind."

YHP's push to integrate more closely with the rest of the company is due in part to lessons learned during Katsuto's assignment in Hong Kong. He spent two and a half years there as head of the Medical Products Group's Asia Pacific operations. "I saw many Japanese customers moving out into the region to develop their own offshore operations," he says.

Today, the Japanese government is encouraging companies to invest and grow in other markets. And its own Overseas Development Assistance program offers HP some tremendous chances to gain sales by behaving as a truly global company.

The Japanese government grants about \$11 billion each year to devel-

Yokogawa-Hewlett-Packard at a glance

Employees: 4,000

Sales and service offices: 28

Manufacturing sites: 2

YHP established: 1963

Won Deming Prize: 1982

HP Labs Japan started: 1990



While YHP's sales dipped in 1992, the company's Japanese operation has still outperformed the country's sluggish economy. (All figures in millions of dollars)



CAROLINE PARSONS

When HP introduced Japanese versions of its inkjet printers, sales soared in personal computer stores like Crown Computers in Tokyo.

oping countries like Thailand and Malaysia to invest in projects like hydroelectric plants. Equipment and services contracts often go to "familiar" Japanese firms through Japanese trading companies in the developing countries.

Because HP already has local operations in many of these developing countries, it should be fairly simple to work with the YHP teams who call on the Japanese contracting winners back in Tokyo.

"We need to take the mental borders out of our operations," says Katsuto, "Look at HP's activities worldwide. No borders exist. The same should be true for our YHP organization."

There's lots of evidence of the ways YHP is trying to integrate itself more fully into the HP world. For

many years YHP had its own profit-sharing plan, based on its legal YHP operating profit. "That was out-of-synch with our global financing strategy," says Katsuto. Changes to transfer pricing policies made it much more difficult for YHP to control its own profit level. So in 1991, YHP moved to the HP profit-sharing program. The timing couldn't have been better since that was the year so many Japanese companies' profitability collapsed.

One reason for moving to parallel programs is pragmatism.

Another reason is to stay a step ahead of the competition. Because YHP is not familiar to the average Japanese, the company has always had to work harder to recruit employees against better-known Japanese firms. To do that, you must lead, not follow.

YHP was one of the first companies in Japan to move away from a seniority-based pay system to one based on performance and merit. Today, many companies, including some of the country's leading banks, have followed YHP's lead.

YHP also moved to a five-day work week in 1967—long before other companies and long before it was required by the government. An eight-hours-per-day, five-days-per-week (40-hour) work week became official in Japan in April 1994. But today, you can still see Tokyo office lights burning late into night as *salarymen* (and *women*) routinely toil at their desks until 9 or 10 at night.

Japanese workers clock a lot more work time each year than their European or American counterparts. *Karoshi*, or death from too much

Moves

work, has led to several lawsuits in the past few years.

A study by the Japanese government found that one in every six men worked at least 3,100 hours a year. The Japanese average of 2,124 is still about 200 more per year than in the United States and Britain and about 400 more hours than in France and Germany. The Japanese government's goal is to reach 1,800 annual work hours by 1997 so workers can play more and the country can become a "lifestyle superpower."

To reach that goal, Japanese companies are having to move much more quickly than ever before. Many are already doing so, pushed along by the recession, new government requirements and the changing social environment.

The ability to communicate change effectively and implement it quickly is becoming more important to all com-

"...people are born with two ears and one mouth. Managers should spend more time listening and less time talking."

panies, including YHP. In order to stay ahead of other companies, YHP management is spending a lot more time explaining change to employees.

"We used to do a lot of top-down explanation of the basic facts," admits Katsuto. "But today we're trying to explain the purpose behind the changes and we spend a lot of time listening to people's concerns."

For example, Katsuto and his management team launched a program called "Come and Talk" that goes beyond the typical HP monthly



YHP President and country General Manager Katsuto Kohtani meets with Oori Ishizuka (left) and Hiroyuki Suzuki at the Kobe facility during a new-employee communication session.

business-focused meeting. Come and Talk is an open forum where Katsuto and other YHP execs handle a wide range of employee questions covering anything from closing sales offices to job security.

Come and Talk is informal, even by HP standards, and certainly unusual by Japanese standards. YHP communications people looked at many other Japanese companies to see if models for such programs existed, but they came up empty-handed.

Katsuto's approachable management style comes through in the Come and Talk meetings. "I believe that people are born with two ears and one mouth. Managers should spend more time listening and less time talking."

It will be easier for Katsuto to hold sessions for YHP's Tokyo-based employees soon. Construction is under way on a new facility on the company's Hachioji campus.

YHP moved into its first manufacturing operation in the west-Tokyo suburb in 1964, and the company-owned property is now worth thousands of times its original price.

During a two-year modernization effort, the older of the two two-story manufacturing buildings is being replaced with three sleek office towers. The new facility will house about 1,000 employees in support, marketing and administration who currently work in expensive leased facilities in downtown Tokyo locations.

Such modernization efforts and thoughtful changes to programs are typical of the kinds of moves YHP has been making to stay ahead of the competition in Japan. While YHP is quick to adopt new programs, it still places a high value on tradition. The new construction project at Hachioji started with a ritual that is centuries old: a Shinto priest purified the grounds to ward off evil spirits. **M**

(Brad Whitworth is international communications and public affairs manager and a former editor of MEASURE.—Editor)

Mass storage: a quiet hero

By Betty Gerard

With an array of world-beating products and new visibility on dealers' shelves, the Mass Storage Group is ready for heroics.

In the past, it was easy to overlook the Mass Storage Group (MSG), a quiet hero. Its reliable products for storing or backing up computer data were noticed only on those rare occasions when they failed.

That's changing. Mass storage is moving front and center in visibility.

Today, MSG has continued to enhance its original tape and disk drives—read by tiny magnetic heads that fly .000002 inches from the surface of the magnetic disk—and has added new, highly successful optical products that are read by optics. MSG sells across the board to all major manufacturers and through resellers.

Happily, all computers need its products: hard disk drives, tape drives, optical drives, libraries and storage systems sold to original equipment manufacturers (OEMs)...arrays that can reconstruct files even if a disk fails...PC and PC network backup. The smallest product is the diminutive but powerful 1.3-inch Kittyhawk personal storage module; the largest is an optical library that operates like a highly intelligent jukebox as it exchanges disks unerringly. The oldest is a 1/2-inch reel-to-reel tape, still a steady seller.

A promotional campaign this fall will showcase the remarkable breadth of MSG's world-beating products for computer backup and storage and mobile computing:

- No. 1 worldwide in 5.25-inch optical disk drive jukeboxes
- No. 1 worldwide in digital audio tape (DAT) drives
- No. 1 worldwide in 1.3-inch personal storage modules
- No. 1 worldwide in DC2000 tape drives.

As part of this new thrust toward greater visibility, MSG has started to

follow the lead of its 1992 acquisition, Colorado Memory Systems (CMS) in Loveland, Colorado. CMS understands the merchandising needed to move PC backup through reseller channels to PC owners and small offices with PC networks.

MSG's Computer Peripherals Bristol (DAT backup systems) and Storage Systems Division (optical) joined CMS this spring in a "Grand Slam" promotion that offered some 30,000 prizes to dealer sales reps and distributors. Value-added resellers (VARs), a new target market for MSG, want to buy storage components through this channel.

At the other end of the continuum, sales to OEMs have picked up momentum. They buy mechanisms that lose their HP identity as part of systems.

"Make a mistake and you're off the board—with millions of dollars involved."

Ray Smelek, who retired in May as vice president and group general manager (see page 10), says, "Today, every major integrator in the world uses one or more of our mass-storage products."

For many years, HP's excellent mass-storage products went only to its own systems divisions. That changed in the 1980s, when open systems and standard "form factors" emerged. "It became obvious we had to broaden our market penetration," Ray says.

In those early days, 90 percent of HP's mass-storage products still went to HP's systems divisions. Today, that's down to 25 percent; by 1998, it's

Mass storage

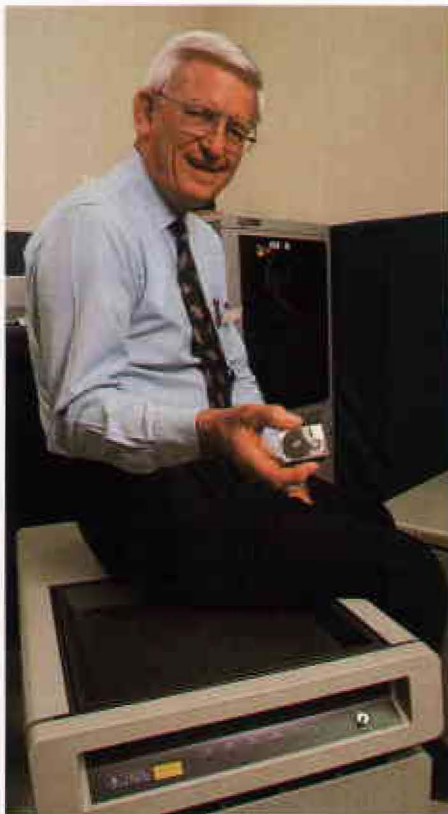
predicted that only 4 percent will be used within HP.

Two reasons for that drop are the continuing decrease in cost per megabyte, and more sales to outside customers. Since 1991, when MSG was formed, business has quadrupled. MSG has higher annual sales than any of the other groups—Medical Products, Analytical Products and Components—in the Measurement Systems Organization (MSO).

Doug Carnahan, vice president and MSO general manager, declares that HP “has the most robust set of storage technologies in the world.” He sees a bright future for further growth in mass storage, which is a “must” for computer systems and networks. The market is barely touched: 92 percent of the world’s information is still kept on paper.

Doug foresees software that will automate the back-up of data—so sophisticated it can be told what to save, when to save it and how to prioritize its importance for fast-access.

As general manager of the Disk Memory Division (DMD) in Boise, Idaho, Bruce Spenner has lived with high growth. (Bruce succeeded Ray Smelek as group general manager



DENNIS AHERN

Ray Smelek holds the 1.3-inch Kittyhawk personal storage module, with one-third the megabyte capacity of the 1980s disk drive on which Ray is seated.

Driving new businesses

BOISE, Idaho—When Hewlett-Packard acquired Datamec, a Mountain View, California, maker of tape and disk drives, in 1967, it marked HP’s entry into a new business. Ray Smelek, who had come to HP a decade earlier while finishing engineering school, became the

manufacturing manager. He had already served in that role at HP’s first plant in the U.K. in Bedford, England, then helped select the South Queensferry, Scotland, site and headed its manufacturing.

When HP decided to get into the printer business, Ray surveyed possible U.S. sites and chose Boise, Idaho. He moved there in 1973 to start production, and was general manager of the former Boise Division for 12 years. He started the impact printer business that became the LaserJet success story.

Transferring to Bristol, England, in 1985, Ray doubled as general manager for both that division and one in Greeley, Colorado, until 1988. He stimulated two more successes: Bristol’s cooperation with Sony in DAT drives and Greeley’s optical business.

He returned to Boise in 1988 to manage the newly organized Mass Storage Group. A community leader, Ray is currently heading a campaign to raise \$13.4 million for enlarged YMCA facilities. Given his track record, its success is assured.

“Anyone whose hard drive has crashed becomes a believer in backup.”

June 1.) DMD, which makes disk drives, has been growing at the rate of 65 percent in revenue, with units doubling every year for the last three years. In the fiercely competitive OEM

market, there’s no let-up in bringing out new versions of superior products.

In the tightly knit disk-drive world, Bruce knows each of his competitors personally; the buying of components and devices is cross-linked among companies. “We compete, but it’s like a board game because we all know what’s going on,” he says. “Make a mistake and you’re off the board—with millions of dollars involved.”

Adds Jan Bell, DMD marketing manager, “Our on-line mechanisms have traditionally had huge, tough,

formidable competitors.” HP fares well, using its expertise in system integration and having top-quality, competitively priced products.

Future expansion of DMD will be in Penang, Malaysia, where many of the division’s vendors are located. Having a manufacturing presence in Asia Pacific is an important factor in expanding business in that market.

Computer Peripherals Bristol Division (CPB) under General Manager John Gannon has worldwide responsibility for its own highly successful



Shirley Humphries and Matt Jacoby work on complex optical storage products at the Storage Systems Division in Greeley, Colorado.

DAT mechanisms and tape systems. It is also a licensee, making products of the other three MSG divisions. CPB has 42 percent of world market share in DAT backup tape storage and the world's highest revenue growth in this high-end tape technology.

A similar success story is echoed by the Storage Systems Division (SSD), split between Boise and Greeley, Colorado, where General Manager Bob Tillman has his headquarters. Originally formed to integrate customized systems that include both tape and disk drives, SSD is enjoying a run-away success in optical, the lowest-cost form of bulk storage. It is developing products such as optical arrays to sell through resellers.

The hottest SSD products right now are the optical libraries. Last year SSD had 51.7 percent revenue market share in 5.25-inch optical disk drive jukeboxes. Like all its intricately made products, key parts are pummeled and punished by moisture and

heat for up to 32 hours before release to customers. An optical library will go a full year without a failure. The cartridge picker makes one million swaps between failures and "is ridiculously smart," according Clark Mozer, manufacturing manager.

Colorado Memory Systems fills the PC gap in HP's mass-storage offering. Even before the acquisition by HP, the 200 CMS response-center employees—who take up to 8,000 calls a day—were housed up the hill at HP's Loveland site. A new CMS building is under construction there.

CMS is a lively newcomer which still has the nimbleness of an entrepreneur and a head start on outbound sales. To help simplify resellers' inventories, the basic CMS product can be altered with customizing kits.

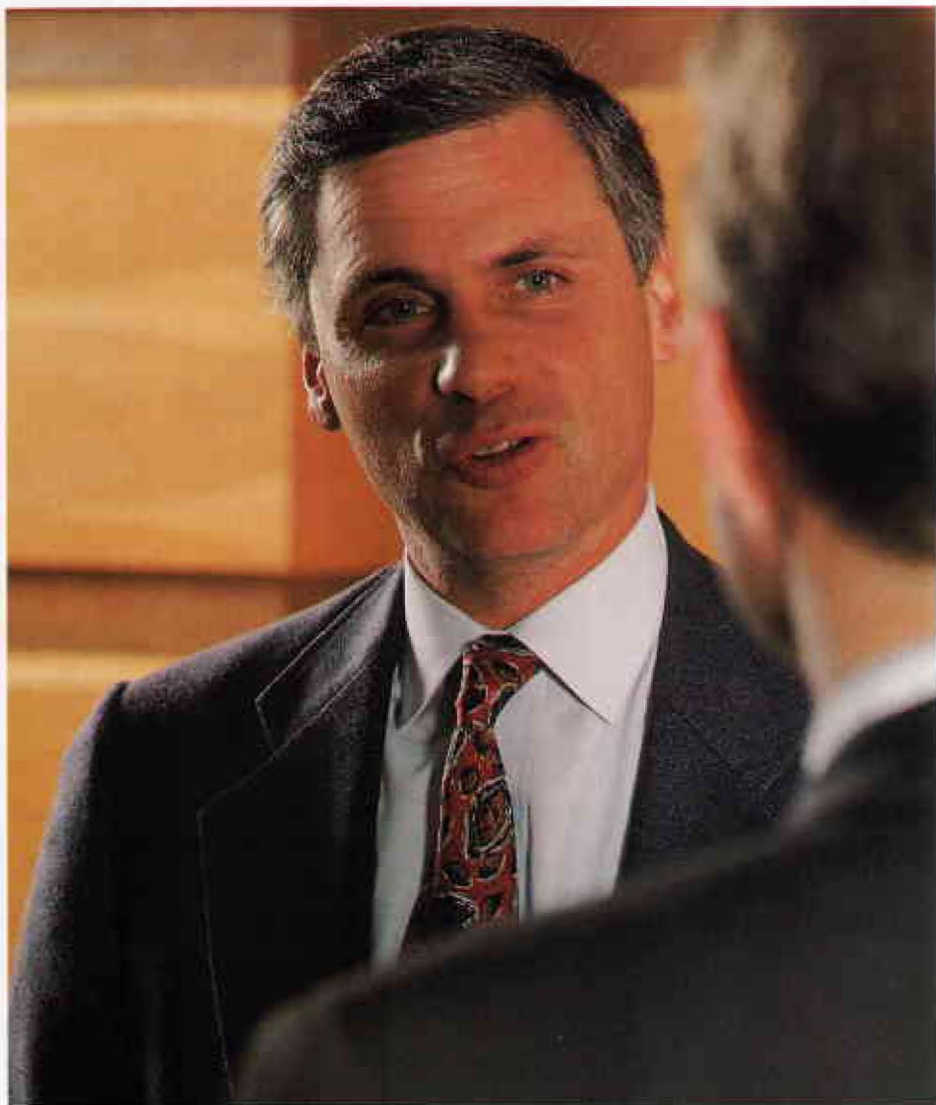
Promotions abound. As Bob LiVolsi, CMS sales and marketing manager, explains, "You first have to create pull for the concept of PC backup, then get shelf space for what is seen as a

marginal need." He adds, "Anyone whose hard drive has crashed becomes a believer in backup."

Bob gives General Manager John Boose high marks for the quality, process and cost-management techniques he brought from HP in 1993. John (who has also served as G.M. in Greeley and Bristol) sees a need for CMS and Bristol divisions to coordinate their world-leading businesses and to develop a joint tape-drive strategy to maintain HP's No. 1 position in tape backup.

CMS has a software lab larger than its hardware lab, and software is seen as key to its success. With PC disk drives doubling in capacity every year, PC backup must keep pace—hitting "the sweet spot" just right.

As the world explodes with computerized data that must be saved and accessed, watch for the mass-storage business to become HP's next mega-hero. **M**



BILL MELTON

Opinionated, engaging, decisive—HP's 40-year-old vice president accepts every challenge head-on.

Brooklyn-born Gary Eichhorn says, "In the workstation business, you don't get respect by backing down and being conservative. You get respect by going after opportunities."

"You gotta come at 'em"

By John Monahan

CHELMSFORD, Massachusetts—Four hundred people waited in the cafeteria at HP's Chelmsford site to hear the first words from the man who would lead them from their gloom. They were a beleaguered lot; many of the former Apollo Computer employees were skeptical about their future in the orbit of HP.

Finally, the man arrived—slimly fit, Caribbean-eyed—and after he was introduced, he took the microphone in hand, looked squarely at them, and said nothing.

He tapped the microphone again; it still didn't work. The situation couldn't have been better for Gary Eichhorn, though. He gladly waded into the crowd and roused them until his voice was hoarse and his message about winning in the workstation wars was clear:

You gotta come at 'em.

With those marching orders, the Workstation Systems Group (WSG), which Gary managed until June 20 (when he became head of the Medical

Products Group), has been gobbling up customers from arch-competitors like Sun Microsystems, Digital Equipment Corporation and IBM. HP is No. 2 worldwide in the \$10 billion workstation industry. In 1993, HP gained nearly 4 points of market share, according to industry analysts.

Some business it is—a feeding frenzy with finger bowls. To compete, you must roll out new products every 12 to 15 months and they must be more powerful and less expensive than the ones your competitors are rolling out at the same frenzied pace. To win, you have to be flawless every time in R&D, manufacturing, field sales, marketing and quality. To prosper, you must streamline and focus your organization to grab future opportunities since, in effect, you're creating a new business every year.

At the same time, savage competitors may politely form alliances among themselves to address common issues, such as industry standards. But these may make it easier for customers to switch vendors. In customers' eyes you're only as good today as you will be next year. They want total solutions from people who can aggressively anticipate real needs.

You'd better move as fast as they do and be willing to take chances if you want to earn their trust. Which brings up a unique aspect of the workstation business: There's probably no other area in the computer industry where the visibility and personalities of the players have such a direct influence on buying decisions.

It's an arena for the risk-taker, the idea synthesizer, the aggressive and articulate; it's an arena Gary Eichhorn has thrived in for half of his 40 years.

Gary Eichhorn speaks out on...

Lew Platt: "The time is right for Lew and Lew is right for the times."

Sun Microsystems: "They've done a remarkable job keeping it together since they've lost leadership in ideas and technology."

Quality: "A fundamental requirement for doing business and keeping business."

The year 2004: "How foolish we sounded 10 years ago."

"Gary, you can't do that:" "Depends who says it. Sometimes it's a good way to get me to do it."

Do more with less: "I don't understand thinking like that. Shows you need to focus on clear goals and get rid of bureaucracy."

Delegation: "Give people responsibility and you give them a sense of accomplishment."

Diversity: "A source for new people and new points of view to help HP make better decisions."

MBWA: "I've been doing it for years and didn't know what you call it."

Unlike anyone else who's ever made vice president at HP (and at age 39), Gary spent his first 16 years at Digital Equipment Corporation, starting as a sales rep and becoming vice president of its General Systems Business before coming to HP in 1991.

The "old Digital," as he calls his first 13 years there, was similar to the HP he found—a like culture, energetic people, same decision processes—but the Digital of his last three years was stumbling. He accepted the opportunity to work for Lew Platt, who then managed the Computer Systems Organization, and Wim Roelandts, who does now, after they assured him he would have the freedom to make his own decisions and take risks.

"Wim has set a tone for being aggressive and going out, making deals and getting into new things," Gary says. "He's never held me back. In this business, you gotta come at 'em."

It wasn't much more than a year after he was hired that Gary unflinchingly unveiled a new line of HP workstations the same day his former company was making a similar

"These are leading-edge people, risk-takers who like you to be opinionated and take a stand."

announcement. He told *The New York Times*: "Digital had the fastest workstations in the industry for four hours. They introduced theirs at 10 a.m. and we introduced a faster one at 2 p.m."

HP too often has been like a shy kid from the Farm Belt who can lift 500 pounds but who's too nice to confront bullies. It helps to have a guy raised in Brooklyn explain the rules. "In the workstation business, you don't get respect by backing down and

"Come at 'em"

being conservative," Gary says. You get respect by going after opportunities."

HP, for instance, is introducing an X terminal designed as a frontal assault on \$400 million of X terminals in Sun's installed base. "They won't like it," Gary says, "but they'll respect us."

Gary is frequently in the press because customers expect it. "These are leading-edge people," he says, "risk-takers who like you to be opinionated and take a stand. They're investing in computers but also a vision and a mind-set. They want to know you'll be on the leading edge with them."

The effects of Gary's leadership—a mix of trenchant intellect and panache with a common touch—have invigorated the entire WSG organization. You can read about it in the press—"Suddenly, Hewlett looks more like Madonna" than "The Gray Old Lady," *Investor's Business Daily* said in a story featuring Gary. You hear it from HP people, too.

"We made him an honorary Colorado cowboy," says Paul Asmus, a technical consulting manager at

"People would walk off a cliff for him..."

HP's Fort Collins site, who gave Gary a cowboy hat at a coffee talk. "Most people at the worker level know more about him than any other big-time manager. They appreciate him because he's decisive and engaging."

Says George Gardner, WSG marketing programs manager in Chelmsford, "People would walk off a cliff for him. He's tough and thorough, but he gives



Co-workers have described Gary Eichhorn, who meets here with Workstation Systems Group Personnel Manager Pat Lingen, as tough, thorough and "a ham."

marching orders people respect (because) he sets clear goals and expects accountability."

"A ham," says Paula Hardacre, Gary's secretary.

Stories are legion about teams working months on a presentation, only to have Gary spend five minutes scrutinizing it and raising points no one else had thought about. As Mike Gallup, WSG marketing manager, tells it, "We had a 12-hour staff meeting one day going over every aspect of the business—R&D, manufacturing, financials, marketing, personnel—and at the end of the meeting it dawned on me that he knew more about every one of those than anyone else there."

Hanging in Gary's office was the WSG organization chart that he studied with an eye to eradicating creeping bureaucracy. There was also a giant white board that occupied nearly an entire wall. It was covered with cryptic analyses and colored arrows and floating acronyms, so that it looked like an immensely complex scientific formula for segmenting markets and broadening product lines. Gary is, after all, a business man by way of his education in physical chemistry.

His senior year at Colgate University he married Joan, his wife of

19 years. They have two children, Heather, 15, and Rick, 12. "My family is the most important thing in my life," says Gary, who travels 70 percent of the time. "People are cynical about hearing that, but I think the people who know me know that it's true."

Since their annual Christmas trip to Aruba, the Eichhorns this year have been to Arizona and Montana (Joan had to work, so Gary took the kids himself.). On weekends they go to Cape Cod.

"I'm a beach bum," Gary says. He's also an amateur jazz guitar player, avid reader of biographies, and beats on his two punching bags at his home gym. "Sometimes I see faces on the bag, but it's like racquetball—I do it for fitness."

Be that as it may, companies such as Sun who would tread on HP found that Gary Eichhorn was a formidable opponent. And HP has learned that the rules allow you to hit back. **M**

(John Monahan, a Colorado-based free-lance writer, is a former HP communications manager at the Fort Collins site.—Editor)

Dollars and scents

By Mary Weed-Pickens

VERSAILLES, France—Jean-Luc Guinament, HP France's sales development manager for the Analytical Products Group, is not your typical salesman.

He's also a chemistry professor at Montpellier University in France. His first language was Breton—not French—spoken in Brittany, France, a region known for its independent thinkers with dogged determination.

It took Jean-Luc's unique sales approach to win over the International Advanced Institute for Perfume, Cosmetics and Food Flavoring—officially known as the Institut Supérieur International du Parfum, de la Cosmétique et de l'Aromatique Alimentaire—for HP.

Jean-Luc knew from the start that to break into a bastion of traditional French industry-supported schools would be a daunting task. Until recently, the Institute could purchase only French-manufactured equipment by law. That law changed and HP has become the key provider of the Institute's analytical equipment.

Students use HP equipment to learn how to create sample concentrates of essences ranging from wine root, which gives a 'woody' flavor to wine, to rose—the world's most expensive essence.

The students get an exceptional education in subjects as varied as chemistry, marketing, the arts and sensorial training. That training translates into practically full employment upon graduation. **M**

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



PHOTOS BY ANNE KNUDSEN

above

Elizabeth Lopel de Ayora, an employee at perfume manufacturer Guerlain's Champs-Élysées store, talks with a customer. HP analytical equipment helps Guerlain and other companies develop their famous scents.

right

Fauchon, Paris' fashionable, upscale gourmet food store, attracts thousands of customers each year. HP analytical equipment helps ensure the proper aroma in meats, cheese, fish, soups, pâté and chocolate, to name a few.





above

Gilbert Legras, the director of studies at the International Advanced Institute for Perfume, Cosmetics and Food Flavoring, discusses the sensory analysis of food and beverages with lab assistant Isabelle Routier.



above right

Students in a sensory analysis class learn to identify more than 400 smells—both alone and in combinations.

right

Rebecca Clarke, a student at the Institute, studies in the ground-floor library of the chateau that houses the Institute.

below

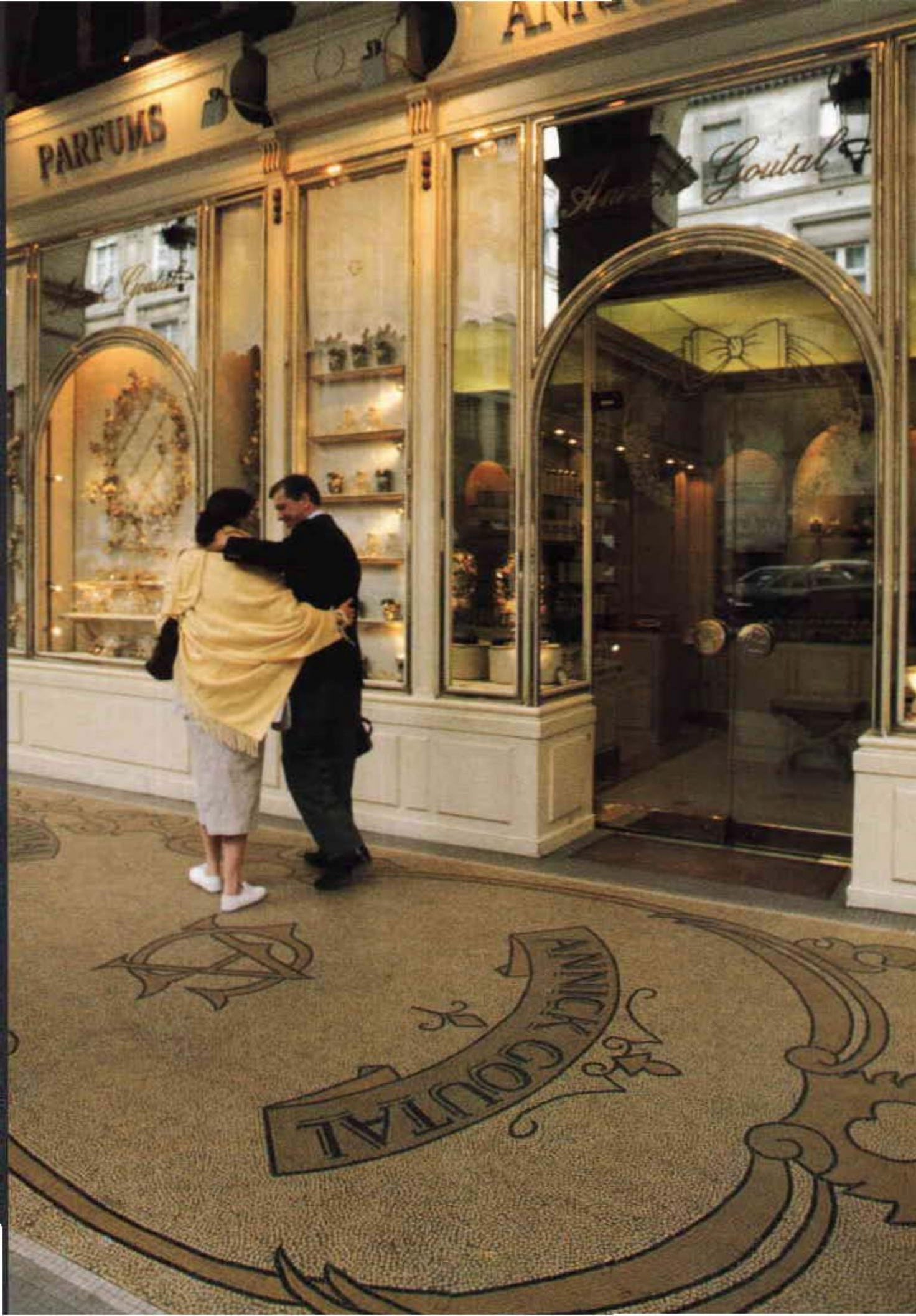
Jean-Luc Guinament (left), HP sales development manager for the Analytical Products Group in France, talks with Marc Ditsch, an application engineer and lab professor at the Institute. The Institute uses a variety of HP equipment to conduct compositional analyses of hundreds of substances.



right

The blend of the Institute's artistic talent and HP's analytical equipment produces fine fragrances, like those sold at Annick Goutal, near the Place Vendôme in the heart of Paris.





PARFUMS

ANNICK

Annick Goutal

ANNICK GOUTAL

PHOTOS BY ANNE KNUDSEN



HP's interactive imagination

By Sandy Reed

The exploding market for interactive TV products is a \$6 billion business with 40 million customers. Here's how HP plugs into that electrifying market.

For the Video Communications Division in the Test and Measurement Organization (TMO), the decision to explore interactive television grew out of a quest to fundamentally refocus the business.

For the Computer Systems Organization (CSO) as a whole, it came from the recognition that a new market was emerging from within the media and publishing industries.

For the Interactive Television Appliances Division in the Computer Products Organization (CPO), the decision was based on the largest national primary consumer-research project ever undertaken in interactive television.

And for CPO's San Diego Imaging Operation, it was a matter of having the right technology for a growing consumer marketplace.

They may have taken different paths, but all of these HP entities, plus HP Laboratories, now are building what

might be called the HP Television Network, a series of products and partnerships designed to make HP a force in interactive television.

HP products include remote-control devices and set-top boxes that consumers will use to interact with their televisions, video servers that make thousands of movies available on demand, printers that provide hard copies of coupons or catalogs, and tracking and billing systems for cable TV companies. HP's partners range from operators of gigantic cable systems to telephone and database companies.

Within eight years, according to Bain & Company, a Boston-based international consulting firm, the U.S. interactive TV market will have 40 million subscribers and generate revenue of \$6 billion. The subscribers will be able to interact with their televisions in many ways, doing things like shopping, taking classes, playing

along with game shows, taking part in opinion surveys or ordering movies to watch instantly instead of going to the video store to rent a tape.

The market will develop first in the United States because the international cable and communications markets answer to many more regulators and require more languages. U.S. cable and telephone companies also are moving faster than their international counterparts to upgrade existing systems and provide the bandwidth necessary for interactivity. It is a ferociously competitive endeavor. In some cities, cable and telephone companies will offer competing services.

No group understands the consumer portion of this emerging market better than the Interactive Television Appliances Division (ITA), formerly the Personal Computing Software Division. ITA's survey of 4,000 consumers is the most comprehensive ever made among potential interactive TV users. It was designed to determine if a market even exists for interactive TV and to identify the key issues necessary for a successful launch.

The research company began with a universe of 93 million U.S. households and narrowed it to 37 million households by limiting it to residents between 25 and 65 years old with annual incomes of more than \$25,000. It then measured attitudes and found that people fall into one of six groups: Interactive Television Fan Club, Utilitarian Time Savers, Ambivalents, Lukewarms, Anti-TV Rejectors and Laggards. (See the box on page 20.)

The survey helped convince ITA that the market is real, not imagined, but it also pointed out issues that HP hasn't faced in any of its other mar-

kets. ITA Market Development Manager Casey Sheldon explains: "We're going after a completely new audience—the TV consumer. Unlike HP's other consumer products—calculators and printers—these will reside in living rooms and are devices intended to generate fun."

Precisely how HP's name will appear on the remote-control devices and set-top boxes is under discussion. If it's too prominent, consumers might begin calling HP when they don't like what's on TV or are unhappy with their cable system operators.

According to the ITA survey, consumers are concerned about



security and privacy issues, about losing control of spending and primarily about controlling their children's viewing habits.

On a recent press tour, Casey picked up a new term for the kid-sized version of a "couch potato": "tater tots."

Everyone in the Video Communications Division (VID) has learned a new vocabulary, too. It began when Microwave and Communications

Group V.P. Dick Anderson decided that the future lay in video, not microwave. Dick and VID General Manager Jim Olson supplied engineers with textbooks and plane tickets, sending them to customers and trade shows to learn about video. "Friday night they went home as microwave engineers," Jim says. "Monday they came back as video engineers."

VID's lineup includes video servers that are key to making video on demand a part of interactive TV. The servers make movies instantly available and let consumers use VCR-like controls to pause, fast-forward or reverse a movie—none of which you can do with traditional TV. The design was a key reason that Pacific

Telesis Video Services chose HP as a partner for its video-on-demand project to be rolled out in Northern California starting in four cities during 1995.

The input/output system is not computer-controlled because, as Jim explains, traditional computer technology is too slow and not suited for high-speed video storage and retrieval. VID designed a video transfer engine that initially lets each server handle up to 2,500 video "streams," which means up to 10,000 of the 100,000 households in the four markets will be able to watch a movie at any one time. VID worked with Pacific Telesis for eight months before the deal was announced, competing against the likes of Digital Equipment Corporation, IBM, AT&T and Silicon Graphics.

In addition to bringing in the Pacific Telesis deal, VID established HP's initial contact with Time-Warner. Contact was then turned over to the San Diego Imaging Operation. Phil

Interactive

Hayes, marketing manager, says HP will supply up to 4,000 printers, supplies and support for the trial, which was supposed to start in mid-1994 but was postponed because of problems with the operating system being developed by another company.

HP DeskJet 310, 560 and 1200C models will be used in Orlando, and results will be monitored frequently to determine how interactive TV participants use the printers. Phil says this is by far the most comprehensive trial being conducted from an application standpoint. The pilot project is scheduled to last 18 months.

Like the other parts of HP involved in interactive TV, the Computer Systems Organization sees an open systems approach as a major advantage. Jim Carlson, marketing manager



for the utilities/media industries group in CSO, says the units within the organization work together and independently in a market that consists of the largest cable, publishing and entertainment companies. They sell hardware and software for billing and operations maintenance systems, focusing on emerging needs such as how to bill for interactive services.

It is, Jim notes, not the highest-profile part of HP's interactive TV efforts. "We're doing something that's almost invisible—the management of cable systems," he says, "but on the other hand, it is one of the key elements of interactive TV—the technology that makes it all possible."

While it may be nearly invisible to the general public, CSO's part of the interactive TV puzzle is highly visible inside HP. Andre Meyer, general manager of the Telecommunications Systems Business Unit, represents CSO on HP's five-member Video Services Council. The council was created to ensure that all businesses understand the company's overall strategy, and can explain it to customers. Jim Olson of VID chairs the council. Other members are Webb McKinney, ITA general manager, Vyomesh Joshi, San Diego Imaging Operation operations manager, and John O'Rourke, HP Labs director of Telecommunications Operations.

"This really shows HP's strengths," Jim says. "Each of our organizations can work with partners in any single area, but we also understand the other parts of the business." It also illustrates the meaning of the equation $HP=MC^2$, where M stands for measurement and C^2 means computing and communication. Or, as Casey Sheldon puts it: "Interactive TV is very competitive. It's clear that the only way we're going to win is by working together." **M**

(Sandy Reed is a free-lance writer based in Saratoga, California. She covers Silicon Valley for Popular Science magazine and is a contributing editor to InfoWorld. She wrote about on-line services in the May-June MEASURE.—Editor)

Attitudes among 37 million U.S. households toward interactive TV

Core Market—14 million

1. Interactive Television Fan Club
 - Most enthusiastic about interactive TV in general
 - Like a wide range of applications
 - Believe interactive TV will be easy to use
 - Unconcerned that they risk obsolescence by buying early
2. Utilitarian Time Savers
 - Most interested in applications of interactive TV that save them time and make chores more convenient

Next Market—12 million

1. Ambivalents
 - Higher than average interest in benefits of interactive TV coupled with multiple concerns

2. Lukewarms

- Neither very enthusiastic about interactive television nor very concerned about it

Out of the Market—11 million

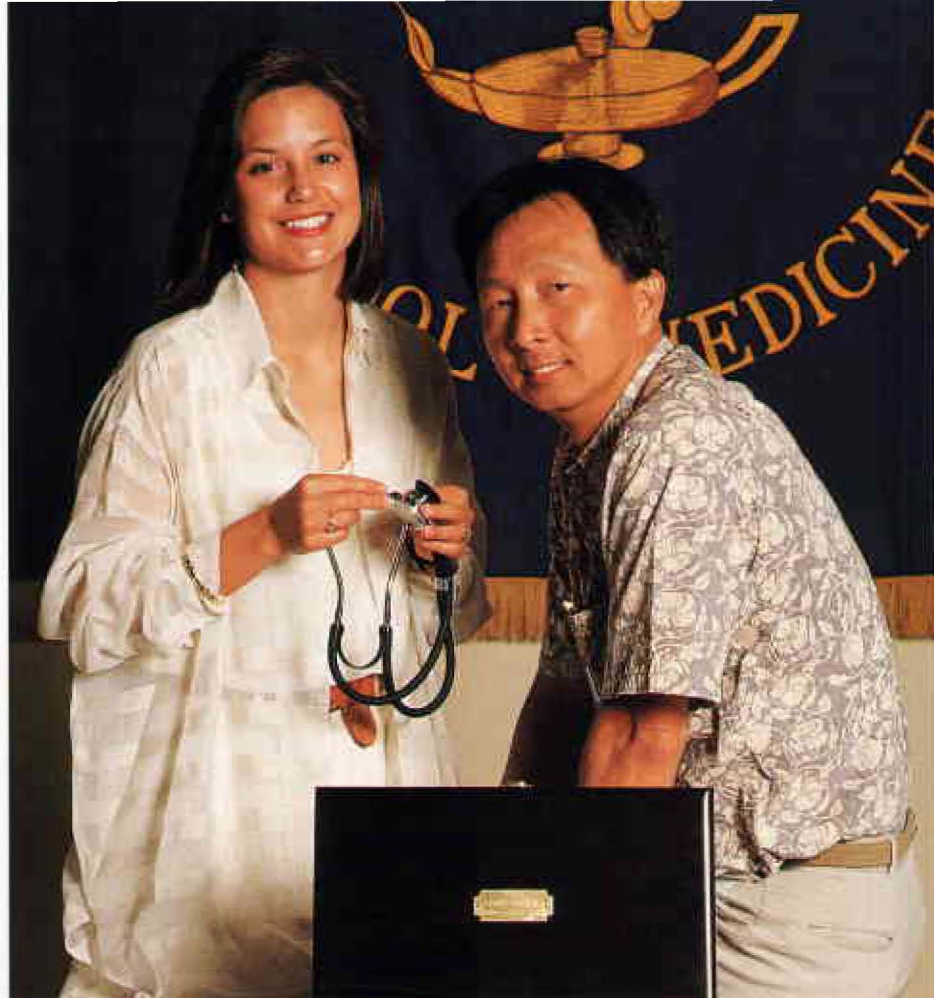
1. Anti-TV Rejectors
 - Not interested in interactive TV
2. Laggards
 - Traditionally buy consumer electronics very late in the product cycle or not at all

Source: Survey conducted by American Lives, Inc. for HP's Interactive Television Appliances Division

From the bottom of HP's heart

By Mary Anne Easley

Only the top U.S. and Canadian medical school grads receive HP's Rappaport-Sprague stethoscope.



CINDY CHARLES

Dr. Nicole Apoliona, a recipient of HP's "Top Grad" award, and her fiance, Dr. Peter Chin, examine the HP Rappaport-Sprague stethoscope.

DAVIS, California—Nicole Apoliona, M.D., is one of 96 new doctors fresh out of medical school at the University of California at Davis. But she's one of only six in her graduating class to qualify for HP's "Top Grad" award.

The award, begun in 1985, is HP's way of recognizing outstanding medical graduates, as well as those specializing in cardiology and critical-care nursing.

Each honoree receives a beautiful mahogany case containing every doctor's most essential instrument, a stethoscope—not just any one, but an HP Rappaport-Sprague stethoscope. The HP Rappaport-Sprague, recognized by cardiologists worldwide as one of the finest stethoscopes, is known for its acoustical excellence.

Each year more than 150 top grads at medical, cardiology and nursing schools throughout the United States

and Canada are selected for the award by their own faculty. The award not only recognizes outstanding scholastic achievement but also is intended to encourage young doctors to keep striving for the same level of excellence in their careers.

The HP Rappaport-Sprague stethoscope was invented nearly 60 years ago by Maurice Rappaport, an engineer with the Sanborn Company in Waltham, Massachusetts, and cardiologist Howard Sprague. In 1961, HP acquired Sanborn and its products, including the stethoscope. Sanborn became the nucleus of today's Medical Products Group.

Just a week after graduating with honors, Dr. Apoliona and her fiance, anesthesiologist Dr. Peter Chin, were married. They'll both practice medicine in Hawaii, where she'll undoubtedly get plenty of use from her HP stethoscope. **M**



How passionate is Phil Yastrow about water-skiing? He's the designer, co-developer and co-owner of two Windsor, Colorado, lakes.

Making a splash

By John Garner

**Only God can make a tree
(but the Systems Technology
Division's Phil Yastrow can
make a lake).**

FORT COLLINS, Colorado—Water-skiing is not just Phil Yastrow's passion—it's his life. Outside of work, that is. During the day, Phil works as a systems manager at HP's Systems Technology Division in Fort Collins, Colorado. But after work, you'll probably find him water-skiing at Laku (pronounced "Lock-oo") Landing, a lake project he co-developed and co-owns in nearby Windsor.

Sound extravagant? His wife Ellen, a chip designer at the Integrated Circuit Business Division (ICBD), thought so. "He had a vision of what it would be," she says. "Before we got married, I didn't realize how serious he was about it."

The idea resulted from a long, evolutionary process that began in 1985, soon after Phil, an electrical engineer, joined HP. A friend took him for a drive and he saw Horsetooth Reservoir. He stared in fascination at water-skiers gliding atop the long slender lake, and said to himself, "Gosh! I've got to do this."

He bought a water-ski boat, but finding companions to help drive and spot was difficult. "I remember having to beg people, 'I'll buy you lunch if you'll go skiing with me,'" he recalls.

He even had trouble getting Ellen to ski with him after they first met in June 1988. She had just joined the former Circuit Technology Group's (CTG's) marketing department as a

sales account manager. Phil was then working in CTG R&D as a chip designer. Since they were the only single people in their respective departments, the R&D engineers designated Phil as their "liaison" to marketing in hopes that he and Ellen might get better acquainted.

Phil finally asked Ellen to go water-skiing with him during lunch. "I didn't go at first," Ellen says, "because I figured he invited all the single women. Finally, a mutual friend, Craig Heikes, invited me to go, and then I got to know Phil better. I liked him, and we started dating. We had a lot in common." They got engaged by Thanksgiving, and married the following September.

Meanwhile, Phil's interest in water-skiing had increased to entering local amateur competitions. He felt the need to practice his slalom tricking and jumping skills, but crowded conditions at public reservoirs made it impossible. He wanted something better.

He decided to rent a house on a private lake, and do his water-skiing there. "That seemed great for the first year," he says. "Then I realized there were still too many boats."

Later, he found a gravel pit near work and talked the owner into renting it. "It was great because there were no other boats—just us," he says. "But then we realized it wasn't optimal for skiing—it wasn't the right shape."

Phil realized that what he actually wanted was to build a world-class tournament water-ski lake. In 1989, a real estate broker connected him with Randy Hocking, a certified public accountant. Phil had competed against Randy in local water-ski tournaments, but he didn't know that Randy shared the same goal. They joined forces. After one property deal



Phil designed one skiing lake to be long and narrow—perfect for ski jumping and slalom skiing—but the biggest obstacle was overcoming a lengthy permit process.

fell through, Randy showed Phil 133 acres he previously had considered in Windsor. The land, which could accommodate two lakes, had major obstacles, but both believed they could be overcome.

"At this point in time," Randy says, "Phil was a pretty good, strong, driving force making things happen. An outstanding feature of his is getting things done and pushing things along—the concept that time is of the essence."

After doing some preliminary research, Phil and Randy committed to buy the land, contingent on whether they could get the permits necessary to develop it. Obtaining the county special-use permit was difficult, and all other permits hinged on it. But thanks to careful preparation, extensive documentation and perseverance, they gained the support of Windsor town officials and nearly all the neighbors. They also got the permits.

Next came the design of the lakes. They bought aerial photos from the county courthouse to get a two-dimensional picture of the site. Phil used the HP Total Station Model 3820 laser range finder, a former product made in Loveland, to survey the land's vertical dimensions. At work, he used a digitizing pen to draw the lakes into ChipBuster, a proprietary IC design system residing on his HP 9000 Series 720 workstation. He added the survey information to make a three-dimensional CAD layout of the site.

Phil and Randy chose to make the first lake 2,400 feet long to accommodate ski jumping and only 240 feet wide for the slalom course, so the lake surface would be less affected by wind. They made the lake's depth 12 feet, so it wouldn't get muddy from speeding boats. They also wanted a gradual 10:1 shoreline slope so that waves generated by boats wouldn't

Splash



GRAFTON SMITH

HP's Brian O'Keefe (left) and water-skiing enthusiast Tom Benzel help Phil prepare for another run on one of his lakes.

reflect after contacting shore. The design of the second lake is similar but shorter.

The next task was getting the lakes dug to their specifications. Gravel companies will do it for free in return for the gravel, which they typically use for road construction projects. But hauling costs are expensive, so they usually wait to dig until it is economically advantageous. "We did a lot of lobbying," Phil says, "and getting on our hands and knees begging people."

Finally, in June 1991, Phil received a call from a gravel company. "Two days later," he says, "they probably had \$2 million worth of equipment out there digging one lake. It was that quick."

It took less than five months to dig the first lake. The second lake site sat idle until January 1994, when the same company returned to dig it. They finished in May.

Besides Phil and Randy, a key factor in Laku Landing's success is the Laku Tournament Water Ski Association (LTWSA), the club that leases the lakes. It has 17 members, including Craig Robson, a chip designer at ICBD, and Brian O'Keefe, a software designer at Network and System Management Division. Club members have planted grass and thousands of trees on the site, as well as built three steel docks, two slalom courses, two boat ramps and a jump ramp. The club also buys three new boats every year.

LTWSA has put on several water-ski tournaments at Laku Landing, including the Colorado State Championships last year.

But Laku Landing never would have materialized if it weren't for the vision, ingenuity and toil of two men. "When we went into this thing," Randy says, "we didn't feel we could pull it off with just the two of us. We've accomplished a pretty big feat." **M**

(John Garner is a marketing communications writer with the Integrated Circuit Business Division in Palo Alto, California.—Editor)

A language lesson

MEASURE is the only English magazine I receive. I read the article "Talking the talk" about abbreviations in the May-June edition and found it to be very instructive. I had seen some of the abbreviations before but I did not know their meanings.

MEASURE is a good teacher of English for me. Please don't forget that your readers are all over the world and English isn't the mother tongue for some of them. Keep up the good work.

OSAMU NAGASE
Kobe, Japan

Remove the fear barrier

Thanks to Gregg Piburn for the "Tell it like it is" article in the May-June edition. I felt so empowered by the article that I passed out copies to several of my co-workers, my supervisor and upper-management personnel.

HP has such a rich and knowledgeable work force that it's a shame that people are afraid to speak up. I have one of those special supervisors who is not threatened by what I say and, at the age of 51, I tend to say what I think. However, if you're young and want to move ahead, you often have to be careful about what you say. Constructive criticism is viewed as negativism rather than a challenge.

For HP to be the best it can be it must remove the fear barrier. Managers have to stop protecting their power base and encourage creative, thoughtful input, and act on it whenever appropriate.

KAREN O'MALLEY
Boise, Idaho

On-line article was right on target

Your article "The wide world of on-line services" (May-June 1994) is an excellent introduction to non-technical people of the fast-growing communication world. I plan to share this article with my wife and kids.

I would like to encourage you to have a follow-up article on the "World Wide Web (WWW)" since HP has launched its external WWW server (URL:<http://www.hp.com/>). HP employees also have established a Newsgroup (an on-line discussion group)—hp.infosystem—to discuss tools to navigate the vast information available on the Internet.

Please also add your Internet e-mail address. I believe there are many HP employees who use e-mail other than HP Desk. Your Internet e-mail address is:

MeasureMagazine@hp0000.desk.hp.com.

This address also is accessible to people outside of HP.

CHUNG-HUEI CHAO
Palo Alto, California

Where's the consistency?

I was pleased to hear recently that the Clinton administration would continue to promote trade with the People's Republic of China by maintaining most-favored-nation status for China. And I am encouraged to note that HP believes "American trade and investment relations with China promote the type of grassroots changes that ultimately will have a lasting impact on human rights and democratic political evolution (HP Newsgroup, May 24, 1994).

Yet, I am reminded that only a few years back we were told in *MEASURE* that HP took a different view of affairs in South Africa, a country, then, with equally disturbing human-rights issues. In that instance, shareholder pressure ultimately forced HP to cease trading directly there.

I believed at that time that HP should have continued its direct presence in South Africa. We should have shown by example how to develop an open, integrated business. And I applaud HP continuing direct investment in China.

But I would like to believe that HP's view of promoting improvements to human rights and political evolution, along with developing trade and investment was rather more consistent. I would like to believe that we did not appear to be so influenced by the size of the pot of gold at the end of the rainbow—important though this is for all of us if we are to continue to help one another in this fragile world.

DAVID LORD
South Queensferry, Scotland

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 Measure MAGAZINE or send your comments to Jay Coleman, Building 20/BR, Palo Alto. Please limit your letter to about 150 words, sign your name and give your location. We reserve the right to edit letters.

Strategic or short-sighted?

By Chris Hugins

I'd like to comment on Chairman, President and CEO Lew Platt's May-June 1994 *MEASURE* letter to employees regarding employment security.

There's an alarming trend by HP and other U.S.-based multinational companies to rely more on contractors, justified by the new buzzwords "core competencies."

When I started at HP a decade ago, the majority of workers, including security guards and janitors, were HP employees. They were entitled to company picnics, benefit packages and the other perks of HP membership.

HP contractors are as hard working and competent as regular HP employees, but the company is relieved of the responsibility of concern for their welfare. Additionally, regular HP employees are keenly aware of this stratification of the work force.

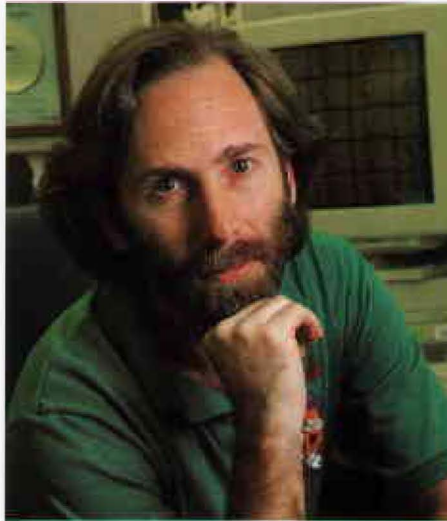
For short-term competitiveness, a number of less easy-to-quantify advantages have been lost by this stratification strategy:

Talent development

When visiting HP as a college student, I heard a story about an HP janitor. As an employee, he received college tuition reimbursement for work-related classes. He became a valuable member of HP's management team.

Loyalty and "that extra effort"

When workers see the company working to enable them to better themselves and to perform their jobs, it fosters reciprocal loyalty. Consequently, workers know that the company's welfare coincides with their own. When a maintenance worker (not a "core competency") sees something that could be changed to HP's



Steps to improve HP's short-term profitability can be short-sighted, says Chris Hugins.

advantage, he or she is driven by a concern for the company's welfare.

Knowledge retention

HP has always "run lean" instead of operating a hire-and-fire operation. Filling temporary needs with contractors is a reasonable tactic to maintain this overall goal. However, there is a danger in regard to "core competencies" when contractors are encouraged over a "req" for a regular employee. Managers take the path of least resistance to fill staffing needs.

Unfortunately, contractors (especially those with visa restrictions) are a short-term (up to two years) resource. After becoming experts on various HP products, these people leave with their expertise. The regular employees who inherit the products must develop the knowledge that just walked out the door.

Quality

Contractors may be the most competent, conscientious, hard-working individuals around. Yet, they can't have the long-term view of the module

they're working on and the module's place in long-term strategies that a permanent employee has.

When the module is "thrown over the wall" as the contractor leaves, justification for and side-effects of certain details are lost or forgotten. This can't be good for the overall quality of the system.

I'm sure that *MEASURE* readers can cite other examples of what the current management trend undermines. For me, the greatest loss is the sense of "HP family" that we had. The employees—whether engineers, production staff, security guards or secretaries—all felt connected to each other and the company. Today we have a stratified work force where regular employees are haunted by the fear of becoming "one of them"—the workers without benefits or loyalty.

It's in HP's long-term interest to invest in and develop its workers worldwide, rather than be herded with the other corporate sheep by the dogs of short-term profitability to a world of decreasing markets and social turmoil. **M**

(Chris Hugins is a software engineer at HP's Open Systems Software Division in Cupertino, California. —Editor)

What's on your mind?

Do you have a suggestion about how to improve HP, an anecdote about the HP way or an HP-related comment in general? Send your "On my mind" article—up to 500 words—to Jay Coleman on HP Desk, by fax (415-857-7299) or to Jay at the *MEASURE* address on the back cover.

HP's chairman, president and CEO discusses the "red lights" and "green lights" of Business Fundamentals.

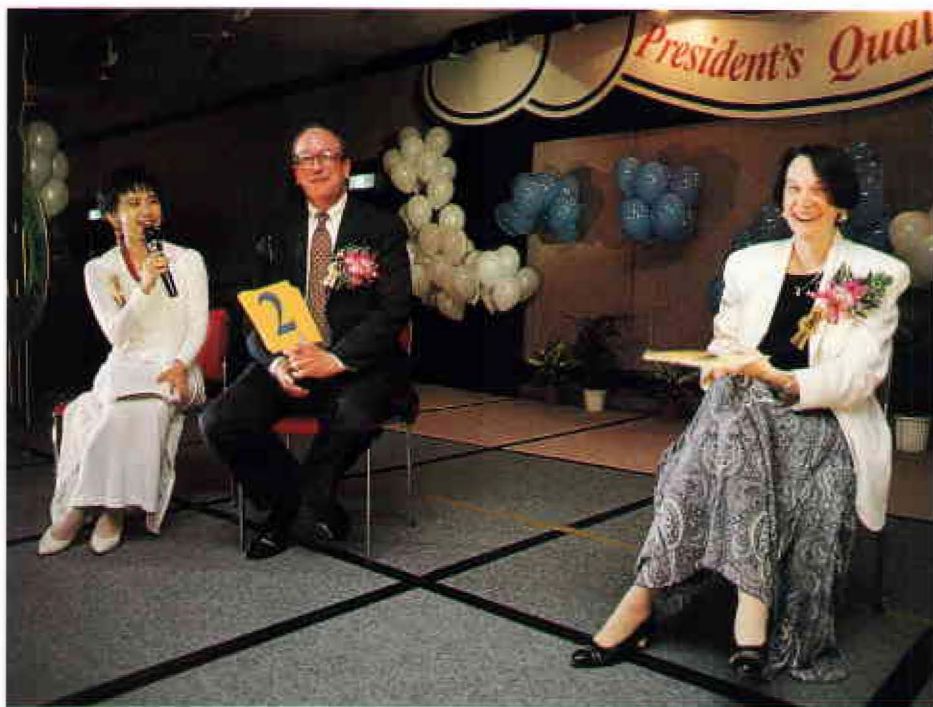
By now, I hope every employee has at least heard of our fiscal year 1994 Hoshin—or breakthrough—goals for the company: improving our financial competitiveness, our order-fulfillment process and our "people" practices.

So in this edition of *MEASURE*, I'd like to focus on the 1994 Business Fundamentals—what they are, why they're important to HP's success and how we track them to gauge our progress.

I'll also zero in on two examples where we've shown solid results and two that still need considerable attention.

Business Fundamentals (listed on page 28), as the name suggests, are day-to-day business essentials such as customer satisfaction, how we generate new products, and reducing injury and illness rates. They're important, but they don't require the kind of breakthrough thinking and improvements that Hoshin goals do.

Every quarter HP's Management Council holds a day-long meeting during which we review the company's progress toward our Hoshin and Business Fundamental goals. It's an honest—sometimes painfully honest—examination as each of the business groups reports its results.



Lew and his wife, Joan, participate in a good-natured Newlywed Game, hosted by HP Taiwan's Teresa Lai in Taipei. Lew also met with the Taiwanese president and premier.

We measure Business Fundamentals' results with a traffic-signal score sheet: a green light signifies fundamentals on which we have made notable progress, a yellow light for ones that still need some attention and a red light for fundamentals that require serious improvement.

Let me give you examples of two green lights and two red lights:

U.S. minority-business program

Before 1994, HP's record for hiring minority suppliers wasn't at the level it should have been. But we've given this fundamental a lot of visibility this year and established a goal that more than 4 percent of all U.S. procurement

dollars be awarded to minority businesses. HP people have used a good deal of creativity to address this, and today it's an area in which we've seen wonderful results.

For example, because of an increase in orders, the Exeter Computer Manufacturing Operation (ECMO) in New Hampshire needed to add a third shift. ECMO analyzed the need and decided it wasn't cost-effective to hire new employees, increase the overtime for existing employees or send the work to a subcontractor. Instead, ECMO hired Total Technical Services, Inc. (TTS), a black-owned temporary employment agency based in Waltham,

Massachusetts, as HP's entire third-shift work force. TTS had the most competitive price, the highest quality and the best references.

Worldwide Environmental Health and Safety (EHS) audits

The very least that employees and local communities can expect from HP is that we'll be a good employer and a good neighbor.

It really gets my dander up when we fail one of our internal EHS audits. That's just sloppy and it could mean problems for our employees or the community. Fortunately, HP people take EHS issues seriously and our EHS programs are quite exemplary. In fact, we've failed only two of our self-imposed audits. Ideally, we reach 100 percent success on all audits. But our recent results are still very impressive.

Software product quality

This includes not only reliability, but areas such as ease-of-use and compatibility. We're having significant difficulty meeting our goals in this area, and that's why we've given it a "red light."

Most of our competitors have the same problem, and none has found the Holy Grail yet. So we'll continue to focus a great deal of attention here.

Hardware product quality

Most organizations are running behind on their hardware goals, too. We got off to a great start in terms of hardware improvement during the 1980s with the 10X stretch goal. All organizations set new goals for the '90s, and it's obvious that we have a lot of work to do to recapture the positive momentum of the '80s.

That's a very brief look at Business Fundamentals—the good, the bad and—I'll stop short of adding "the ugly." As I said, making progress on each of these goals isn't optional. These are essential practices of running a good business.

While none of us can affect all of these goals, we each can play a role in turning at least one of those red or yellow lights into green.

1994 Business Fundamentals

1. Customer satisfaction emphasizes the inherent principle that HP products and services must be of the highest quality and the greatest possible value to customers.

2. Total Quality Management uses HP's Quality Maturity System to measure overall quality of business management processes.

3. Software product quality applies companywide defect tracking to identify ways to improve quality and useability.

4. Hardware product quality reviews customer feedback to determine ways to improve hardware quality and tracks progress to business annual failure rate goals.

5. ISO 9000 challenges each appropriate business to seek certification in these new international standards.

6. U.S. minority-business program requires all U.S. HP busi-

nesses to increase the dollars awarded to the minority-owned suppliers they use.

7. Product-generation process stresses the need to bring new HP products to market quickly and predictably.

8. Performance reviews are expected to be completed on time 100 percent of the time.

9. Injury/illness prevention examines ways to reduce HP rates—especially those that are above industry averages.

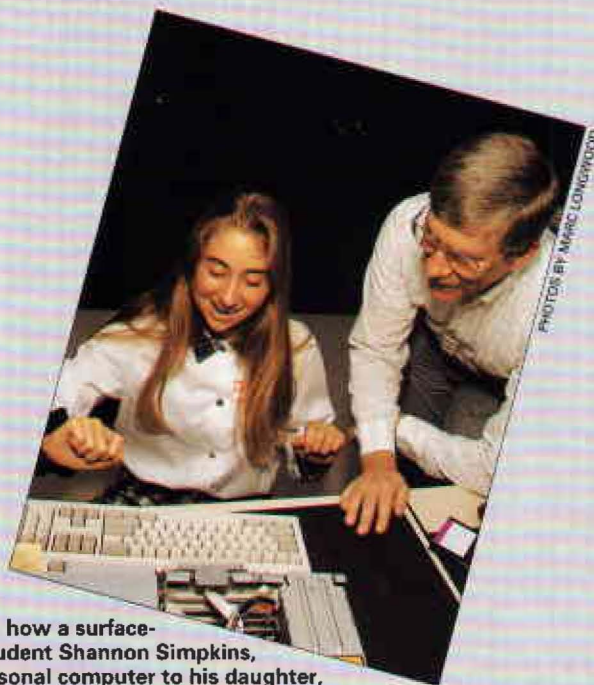
10. Product stewardship emphasizes products that are environmentally responsible through their life cycle.

11. Worldwide Environmental Health and Safety (EHS) audits evaluate site and entity EHS management practices against HP standards.





Cynthia Ruffin (left) explains how a surface-mount printed-circuit board is made to student Shannon Simpkins, while Mike Phillips explains the inner workings of a personal computer to his daughter, Michelle, during the "Take Our Daughters to Work Day" at HP's Roseville, California, site.



PHOTOS BY MARCO LONGWOOD

A glimpse at what mom and dad *really* do at work

Hundreds of young women, ages 9 to 15, got a firsthand look at what their HP mom or dad does for a living on April 28 during the second annual "Take Our Daughters to Work Day."

The event, sponsored by the Ms. Foundation for Women, was designed to encourage parents, guardians and adult friends to show the girls how they might fit into the future workplace.

More than 160 girls visited HP's Roseville, California, site to hear speeches, "shadow" their parents and tour the facility.

"I learned that a woman can get any job that she

wants," said one participant. Added another, "I learned that work can be fun as well as tiring."

Roadmap to success

Nearly 500 HP people from east of the Mississippi River attended the 1994 Eastern Professional Women's Conference in Andover, Massachusetts, in June.

The meeting was modeled on the California-based Technical Women's Conference. The theme was "Roadmap to Success: Identify goals, Set priorities and Take action." Co-chairs were Barbra Glaser and Gail Mann.

"Best Paper" awards were presented in three categories: technical,

business/management and marketing/sales. The conference included professional- and personal-development sessions, guest speakers, panelists and internal presentations. Top honors went to Linda Davis, Business Achievement Award, and Lanta Evans, Leadership Award. Both are in the Computer Products Organization, Linda in the Burlington, Massachusetts, office and Lanta in Rockville, Maryland.

Quoteworthy

“...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.”

“If we stood up here and told you that we didn't see any clouds on the horizon, that would be something for you to worry about.”

“We recognize that we have to go out there every single day and earn HP's place in the sun. There's no cause for—and there's no room for—complacency.”

HP Chairman, President and CEO Lew Platt as quoted in closing remarks to securities analysts on May 25, 1994, in New York City.

BOTTOM LINE

Hewlett-Packard reported a 23 percent increase in net revenue and 19 percent growth in orders for the second quarter of the 1994 fiscal year, ended April 30. Net earnings rose 18 percent from the year-ago quarter.

Net revenue for the second quarter was \$6.3 billion, compared with \$5.1 billion in the year-ago period. The United States, with net revenue of \$2.8 billion, showed an increase of 26 percent over last year's second quarter.

Orders for the quarter totaled \$6.4 billion, compared with \$5.4 billion in the second quarter of 1993.

Net earnings for the quarter were \$408 million or \$1.56 per share on the average of 261 million shares of common stock outstanding. This compares with \$347 million, or \$2.38 per share, on an average of 253 million shares of common stock in the year-ago quarter.

Operating expenses for the second quarter were up 12 percent from the same quarter in FY93. As a percentage of net revenue, operating expenses dropped to 27.6 percent, compared

with 30.3 percent in the year-ago quarter and 28.4 percent in the first quarter of FY94.

The board of directors on May 20 raised the regular quarterly dividend on the company's common stock from 25 cents per share to 30 cents per share.

MSO CHANGES

Within the Measurement Systems Organization (MSO), **Ben Holmes** has retired as G.M. of the Medical Products Group and been replaced by **Gary Eichhorn**.

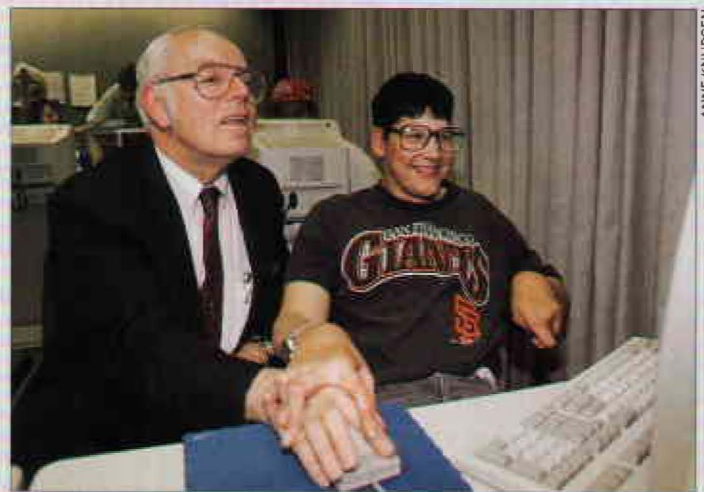
Bruce Spenner to G.M., Mass Storage Group, replacing V.P. **Ray Smelek**, who has retired (see page 10).

Within the Disk Memory Division, **Eric Larson** heads a new Mobile Business Operation.

MORE CHART CHANGES

The Test and Measurement Organization has created a new HP EEsof Division under **Jake Egbert** as G.M.

Within the Personal Information Products Group, the former PC Software Division has a new name: Interactive Television Appliances Division.



HP's Jim White works with Jon, a student with disabilities, during a computer-aided design class in Sunnyvale, California.

A valuable lesson for students, adults

"The students are the ones who are supposed to be doing the learning, but the adults usually walk away with the most important lessons," says Jim White.

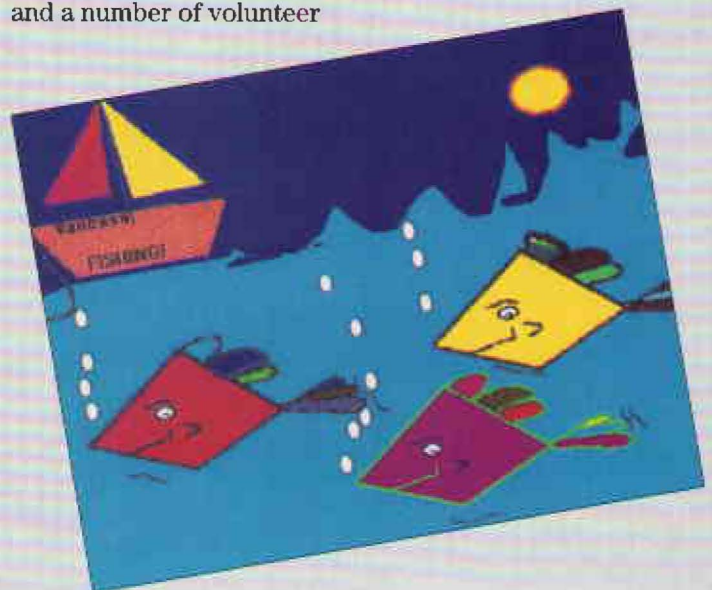
Jim, a technical marketing engineer at HP's Integrated Systems Division in Sunnyvale, California, is talking about an eight-week computer-aided design class for children and young adults with mental disabilities.

HP provides the classroom, hardware—including an HP scanner and color printer donated by the respective HP division—and a number of volunteer

helpers for the course, which is co-sponsored by the Sunnyvale Parks and Recreation Department.

"The computer is just a means of letting the students create real art and express themselves," Jim says. "One mother told me that she didn't understand how her daughter could draw because the mother can't. The mother ended up taking a computer class so she could learn more."

"The objective of the class is for the kids to have fun, not to impose control. Besides, you can't control an artist."



CSO CHANGES

Changes in the Computer Systems Organization:

Bernard Guidon to G.M., Workstation Systems Group.

Within the Solutions Integration Group (SIG), the Professional Services Organization (PSO), now under **Glenn Osaka** as G.M., reports directly to V.P. and G.M. **Mike Leavell**. Reporting to PSO are the Professional Services Division and field operations. **Radha Basu** heads a new International Software Operation providing software resources to HP and external customers.

In the Systems and Servers Group (SSG), **Olivier Helleboid** to G.M., Commercial Systems Division.

In the Software Business Unit, **Jim Davis** has joined HP as G.M. of the Software Engineering Systems Division.

WCSO CHANGES

Within Worldwide Customer Support Operations, the Multivendor Services Division (MSD) and the Support Materials Organization (SMO) have been combined into a new division using the

MSD name. G.M. is **Tom Ashburn**. **Jeff Landre** manages the SMO portion.

Complementary Products Sunnyvale now reports to the Finance and Remarketing Division.

NEW HATS

Within the Computer Products Organization (CPO), **Alex Sozonoff** to G.M., Sales, Distribution, and Support.

Brian Kennan to country G.M., HP Ireland.

GETTING TOGETHER

HP and **Intel** have a joint R&D project to provide advanced technologies such as 64-bit chip designs for "end-of-the-decade" products. The Systems and Servers Group (for CSO) and the IC Business Division have the lead.

HP will acquire **CaLan Inc.**, a leading supplier of cable-TV test, measurement and monitoring systems. It will become part of the Microwave Instruments Division within the Microwave and Communications Group.



Karen and Tony Querido of HP were married in a formal ceremony at their favorite Safeway store in Windsor, California.

This takes the (wedding) cake

When the Safeway supermarket in Windsor, California, held a Bridal Faire this spring, store management wanted to stage a real wedding to top things off.

Enter Karen Monize and Tony Querido, long-time customers who were planning to get married soon in Reno, Nevada.

Both work in Santa Rosa for the Microwave Technology Division, where Karen is a secretary and Tony is a machinist.

After a little persuasion, Karen and Tony agreed to hold their ceremony April 30 in the store lobby, traditional wedding garb and all. Safeway would provide a reception, featuring food

from the deli department and lots of apple cider for the 150 guests to toast the newlyweds.

"We thought it would be fun, and it was," Karen says. Sounding a little like a Safeway TV commercial, she added, "We shop at the store on a regular basis, and consider everyone there to be personal friends."

Everyone agreed it was a grand occasion, from the moment Karen swept out of a white limousine and was whirled through the store's automatic doors to the departure of the newlywed Queridos for a honeymoon in Jamaica.

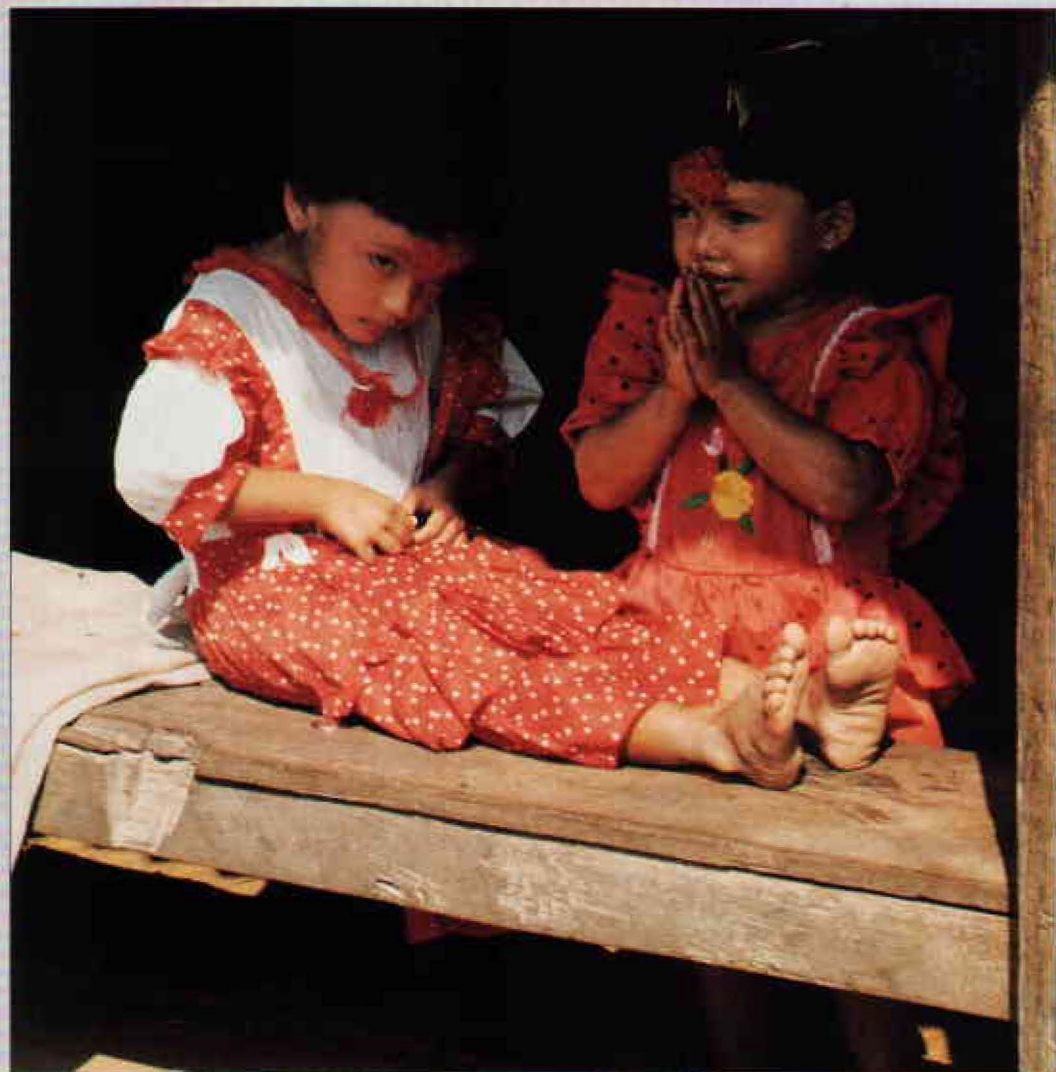
The sisters of Bhote Odar

BHOTE ODAR, Nepal—"In 1991, my wife and I took a one-month trek around the mountains of the Annapurna Massif," says Kyle Adler, a program manager in HP's Operations Services Division in Mountain View, California.

"One day, we stopped to rest and enjoy the scenery when we saw two girls at a tea house on the outskirts of the small village of Bhote Odar in central Nepal.

"Bhote Odar lies along a trail heading from the subtropical lowlands up into the Himalayan foothills," Kyle says. "Most of the Nepalese people living in the lowlands are Hindu, while the people in settlements higher in the mountains mostly are Buddhists. We were fortunate to be trekking during the highest Hindu holiday of the year.

"Known as Tikka Day, it marks the culmination of the festival Dussain—the celebration of the triumph of good over evil. Hindus throughout the country don their finest clothes and



Two colorfully dressed Hindu sisters stop to rest at a tea house in Nepal during their family's journey to the village of their mother's relatives—part of the Tikka Day celebration.

wear a tikka mark made of colored rice on their foreheads.

"In urban Katmandu, the king gives tikka to any subjects who come to the palace. In the remote hill regions, Hindu women and children on this day travel

by foot to the villages of their maternal relatives.

"The beautiful children we found were resting during their journey," Kyle says. "Although the day was very hot and they were tired, these two sisters gave us a warm reply when we bid them *namaste*, or hello.

"Their unforgettable stamina and warmth were echoed in the goodwill of hundreds of other Nepalese we met during our trek."

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