MEASURE

HP turns the corner on sports marketing

The first thing I did when we arrived home from vacation the other day was to look in the den.

"The rat is still alive," I whispered to Kate, my wife.

"The rat" is Marvin, our 2-year-old pet hamster. Marvin joined our family two years ago. I was out of town at a professional conference when Maggie, then 2, and Casey, then 5, talked Kate into the purchase. Casey was allowed to name the rodent; she still can't explain where she came up with the name.

As animals go, hamsters rank right up there with turtles and goldfish as low-maintenance pets. A little water, some hamster food and a spinning activity wheel will keep a hamster happy for years. Of course, they don't fetch the morning newspaper, they probably won't warn you if your home catches on fire and they do little to scare off burglars.

Still, I've come to admire Marvin because he's a survivor.

This quarter-pound bundle of white-and cream-colored fur has withstood extended vacations alone and man-handling (hamster-handling?) by a terrifying 2-year-old and lived to tell about it.

When Marvin was still a novelty in our household, my daughters spent hours on end tossing him around like an old Beanie Baby. He's nearly suffered broken bones when Maggie closed the plastic playhouse door on his leg; he's endured the humiliation of MTV (Marvin TV) when Casey confined him to a vinyl box with a see-through window; and he's bounced back numerous times from being slam-dunked Shaquille O'Neal-style into his cage by Maggie.

I think Marvin's favorite times are the days I work at home in the den. I click away on the computer keys, he spins around on his activity wheel and we both savor the classical music from the stereo in the background. At least, I think I saw him smile the other day.

A few months ago, a French cable TV crew came to our house to document the life of a part-time telecommuter. While most of the report focused on me typing away at the computer, there were five bizarre seconds of Marvin spinning around on his wheel.

The analogy was eerie.

Sadly, while 2 is an extremely young age for most of us, it's typically a lifetime for hamsters. So Kate and I are preparing to explain the eventuality of death to Casey and Maggie. Casey seems to understand.

"I think that when Marvin dies and we bury him," the wise 7-year-old said the other day, "that we should go around to our neighbors with hamsters and invite them to come over and say a few words." I'm pretty sure she was referring to the neighbors.

Later, apparently having worked through her grief, Casey said, "Dad, when Marvin dies, can we get a dog?"
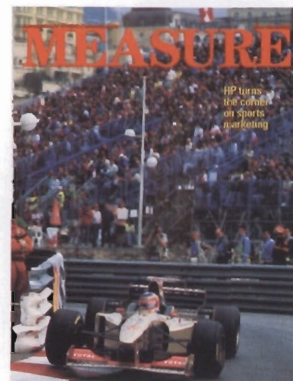
Sometimes I fear for Marvin's safety.

Then Maggie, who loves to let Marvin run free in our house, but bursts into tears when he seeks refuge behind the bookcase, puts things in perspective: "We *have* to find Marvin; he's my best friend!"

That's a pretty good epitaph for a pet. Come to think of it, that's not bad for any of us.

My family's short spring vacation is over. It's back to preschool and school for the kids, back to work for Kate and me. The activity wheel of life keeps spinning faster and faster.

Marvin, the survivor, can relate.

—Jay Coleman

On the cover: With such huge exposure in more than 120 countries, HP is turning the corner on sponsorships for many diverse sports teams. Team Jordan's Rubens Barrichello is shown turning hard enough to get daylight under a tire of his HP-sponsored Formula One Jordan 196 at the Monte Carlo Grand Prix.

Photo courtesy of Frank Humphries / *Perspectives*

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MEASURE

It's how you play the game

From fast cars to Hotspurs—and now the World Cup—HP shifts global sports sponsorships into a higher gear.

By Todd Shapera

K, put in your ear plugs. It is the first Saturday in March, in Melbourne, one day before the Grand Prix auto racing season opener. Reverberating like a symphony of jackhammers and smelling like burnt popcorn oil, an unmuffled procession of 700-horsepower, open-wheeled Formula One cars coasts into the pits following practice laps.

Before the critical qualifying session, drivers and mechanics huddle and analyze car engine data before making adjustments that may skim crucial seconds off lap times.

As Formula One race teams mill about and VIPs pause for photos, an HP entourage of senior account managers and a dozen or so guest executives tours the area with legendary, three-time champion Jackie Stewart.

The intimate, backstage access for select HP customers is rare in professional sports. Imagine being given a "hot pass" to stroll through the locker room of the San Francisco 49ers as

"Our sales teams were bonding and in some cases closing business with guests."

they prepare to battle the Green Bay Packers? But this isn't fantasy football; it is world-class motorsports.

Over the four-day weekend, HP's Australia sales team is treating some 240 executive-level guests to an itinerary of memorable, often adrenaline-filled events. These include pit and garage tours to see teams focusing intently on pre-race preparations. During the race, HP's hospitality suite at the end of the main straightaway proves ideal for viewing the "thrills and spills of the drivers' dash into turn one," says HP motorsports Account Manager Rick Parfitt from HP's sales and service in Birmingham, England.

HP has associations with three teams in the race: Jordan Grand Prix, Stewart Grand Prix and the Benetton team. With engine and gearbox failures for the Stewart and Benetton teams, Jordan driver Damon Hill was the only HP-partnered driver to finish the race. Still, from an HP perspective, the weekend rated a podium finish.

"Our sales teams were bonding and, in some cases, closing business with guests," says Bruce Thompson, HP Australia's managing director. "In this relaxed environment, people opened up, dis-

HP's a good sport

Motorsports is one of many venues where HP has been—if not lapping it up—dabbling in professional sports sponsorships in recent years. Here's a partial lineup:

- Boston Celtics (basketball)
- Boston Red Sox (baseball)
- San Francisco 49ers (football)
- AmericaOne (sailing)
- U.S. Ski Team
- Tottenham Hotspurs (England's Premier Soccer League team)
- International Grand Prix Horse Show
- International Women's Bike Racing
- U.K.'s Surrey County Cricket Club

RICK PARFITT

Engines rumble, tires scream and a crowd of 103,000 roars as F1 drivers in Melbourne thunder around the circuit's turns one and two.

cussed their problems and even told HP where we are getting things wrong and how to fix it." Among the valued customers were executives from Ford and ANZ Bank, one of Australia's largest.

As part of Jackie Stewart's commitment to developing relations among his blue-chip sponsors, he introduced Bruce to the CEO of Hongkong and Shanghai Banking Corporation, one of the world's leading financial institutions.

Meanwhile, a similar scenario with HP showcasing IT and offering hospitality is playing itself out in 19 Championship Auto Racing Teams (CART) races worldwide, via HP's association with three-time world champion owner/driver Bobby Rahal.

"This is an incredible marketing activity," says HP's motorsports Program Manager Pat Esposito. "We want the customer to leave with the impression that if HP can thrive in this fast-paced, high-tech, competitive environment, we will have no trouble thriving in theirs."

Last season provided evidence that the guests were duly impressed. In CART alone, solid new business from trackside guests included support

DAVID ROSE DESIGN & MEDIA

Technology fuels racing

"You might think Formula One is all about motor racing; it's actually a technology race," says Team Jordan's Sponsorship Manager Mark Gallagher. "True, most teams have IT sponsors, but HP is the only company in Formula One that can provide UNIX® system workstations for computer-aided design (CAD), the PC side for administration, all the cabling, consultancy, and the IT management and support."

Of Team Jordan's three technical partners—Goodyear tires, Peugeot engines and HP—Mark says, "The IT side of Formula One is where the real developments have taken place in recent years."

Three-time CART champion and only owner/driver Bobby Rahal knows from prior experience with Digital Equipment Corporation that computer hardware alone won't provide the competitive edge. For the Rahal and Jordan teams, HP is a full technology partner.

Beyond helping with the car from initial design to monitoring race-day performance, HP has wired the teams' entire offices. While Team Rahal engineers use HP Omnibook 3000 notebook PCs, two HP NetServer systems handle application and communications in the office. The Web site also is powered by an HP NetServer LD Pro system.

Reorganizing the teams was similar to the challenges facing many small companies. A three-week HP audit of Team Jordan's 130-person operation found that the five divisions were not integrated, hampering efforts at information-sharing. Says Account Manager Geoff Banks, "We brought support and product specialists to start from scratch, defined business goals and developed solutions they needed to be a successful company that just happened to be in race cars."

As for car design, HP hardware has rendered drawing boards obsolete. "To the best of my knowledge, ours was the first Formula One car designed by computer from the outset," says legendary driver Jackie Stewart. To maximize aerodynamics, 40 percent scale models are tested in multimillion-dollar wind tunnels that run exclusively on HP test and measurement equipment. "They are capable of data collection at ridiculously high sampling rates," Geoff says.

During races, sensors send streams of data from the cars to trackside crews, where HP analysts help interpret the data. Team Rahal even runs simulations during the race using an HP Kayak XW PC workstation and HP NetServer.

HP's durability has earned the respect of Team Jordan's Operations Chief Sam Michael: "We drag our systems to 16 races on four continents every year. Not working is not an option."

GARY GOLD

The "roar by the shore" Toyota Grand Prix in Long Beach, California, drew a three-day crowd of 350,000. Retiring CART driver Bobby Rahal (right), meets with HP's Software and Services Group sponsorship team members Pat Esposito (left) and Leslye Louie. HP sponsorships—one engine and two cars—finished 1-2-3 at the race.

deals of $2.15 million with Alltel, $2.5 million with Lucent Technologies and $2 million in SupportPack services with ComputersAmerica. HP Sales Rep Jeff Keller says that by hosting America Online, "we were able to ease a somewhat strained relationship and demonstrate that HP wants a partnership. We won a $4.5 million dollar deal."

Overseeing the World Cup effort is Alex Sozonoff, HP vice president and G.M. of Marketing and Operations within HP's Computer Organization. Alex says that three interrelated objectives apply to varying degrees to all HP sponsorships:

• showcase HP's technology, systems and support, often in mission-critical environments;

• use hospitality opportunities to develop valuable business relationships in relaxed, exciting settings; and

• leverage branding opportunities by promoting greater awareness of HP among consumers as a powerful $10 billion consumer company.

HP's first serious exposure to soccer came three years ago. Appropriately, it was in the U.K., with a sponsorship in the country's premier sport. A four-year pact with the high-

profile London-region team, the Tottenham Hotspurs, evolved into the most successful venue for high-profile corporate and consumer branding within HP's diverse portfolio of sponsorships.

As the Hotspurs' primary sponsor, paying in the neighborhood of $1.5 million per year, HP was not about to allow its association to be cornerkicked into obscurity. On the contrary, stopping short only of face-painting players and fans, HP branding appears everywhere.

HP's name and logo are emblazoned across the chest of players' jerseys—making it appear to an outsider that the team's name is Hewlett-Packard. And with the grass turf bearing a white HP emblem at midfield, and with prominent field-level, scoreboard and interview-room signage, the same outsider might think the matches are played in Hewlett-Packard Stadium.

After the game, press coverage of players in action reinforces linkages between HP and action—and, hopefully, goal-scoring. Of course, the stadium's 40,000 fans and 7 million

television viewers surely know their team is the Hotspurs, but their sponsor's identity is not lost on them.

The Hotspurs developed its branding strategy by tapping the expertise of a specialized London agency, International Sponsorship Management (ISM). ISM advised that signage should capture the essence of the global company, even though HP product divisions underwrote the relationship with the Hotspurs. The agency devised a simple but powerful message for the ubiquitous signage: "Hewlett-Packard: Computers and Printers for Business and Leisure."

ISM's James Dunning applauds HP's willingness to match the initial Hotspurs sponsorship fee with comparable resources to ensure world-class signage, graphics, advertising, public relations, hospitality and other promotions: "It's not rocket science, but it is important that for every $1 million invested in sponsorship rights, a second and third million be spent to do it right and leverage the investment."

This may bear lessons for future HP sponsorships, including the upcoming World Cup. While meeting the technical challenges involved with wiring 2,000 PCs, 500 printers, 500 servers, and scanners and routers, Alex Sozonoff says he wants to be able to tie back to business results. HP UNIX-system servers will provide mission-critical performance for the

"It's not rocket science, but it is important that for every $1 million invested in sponsorship rights, a second and third million be spent to do it right and leverage the investment."

World Cup Web site, which Alex predicts will handle as many as 1 billion hits.

"A dream," Alex says, "would be to develop one business project for each of 5,200 invited VIPs and a select group of 50 top CEOs during the June and July matches. If we convert those, everything else will be gravy."

By showcasing IT—and with corporate hospitality covered—a challenge for HP may be investing the resources for the third leg of sponsorship—creating global awareness of HP's IT partnership with the World Cup. Indeed, even as proponents point to IBM's advertising and public relations during the Olympic Games in Nagano, Japan, it remains to be seen whether HP can mount comparable efforts to tell the world about its link to the World Cup or whether this may become a casualty of HP's decentralized structure.

Sporting an HP logo on his jumpsuit, F1 team owner Jackie Stewart answers questions for HP guests prior to the Formula One World Championship race at Albert Park, Australia.

Beyond the World Cup, Alex and Katey Kennedy, worldwide World Cup marketing manager, plan to head a team to explore ways to centralize HP's global sports-marketing programs, perhaps undertaking fewer sponsorships and focusing greater resources on maximizing their potential benefits.

"We want to move from a combination of uncoordinated, individual pieces to a more coherent strategy that can pull together and institutionalize in a cohesive way the knowledge and experience acquired through many divisions," Alex explains.

The consolidation makes sense to Corporate Communications Director

Roy Verley: "Given our size, our move into consumer markets and our increasing global presence, we need to learn how to use sports marketing and other sponsorship tools effectively. We are learning to do this strategically, but we have a long way to go." **M**

(Todd Shapera is a free-lance writer who lives in the Hudson Valley of New York.—Editor)

Bobby Rahal's CART Champion car is a 240 miles-per-hour wireless "network on wheels." HP showcases Bobby and co-team driver Bryan Herta's car during the season.

Europe's other millennium challenge

The European Union's move to a single currency is creating challenges for HP and its European partners.

By Claude Randall

GENEVA, Switzerland—For most people in the computer industry, the year 2000 is the deadline for fixing the millennium problem. But for industry in Europe, 2000 is also the date by which their IT systems have to be able to handle a brand new currency—the euro.

In a historic move for Europe, most countries of the European Union (EU) are on course to merge their currencies by the turn of the century. As part of the EU's drive toward economic and political union, the German mark, French franc, Belgian franc, Dutch guilder and other currencies are scheduled to be replaced by a single currency.

The impact will be far-reaching for those "in" countries—Austria, Belgium, Finland, France, Germany, Ireland, Italy, Luxembourg, Netherlands, Portugal and Spain—who are changing to the euro as well as the "out" countries—U.K., Denmark, Sweden and Greece—who are continuing to use their own national currencies.

"Imagine if the United States, Canada and Mexico decided to create a new currency that all three countries would use," says Jean-Francois Delmer from HP France, head of HP's task force on the euro. "Think of all the changes the retail, banking and other industries would have to make to operate in the new currency."

As Jean-Francois points out, every cash register, ticket machine and money dispenser in the new euro region will have to be changed to handle the new currency. So will all internal accounting and payroll systems for every affected company.

"These changes essentially require alterations to every organization's IT systems," Jean-Francois says. "In terms of size and complexity, this is close to the millennium issue for most companies in Europe." So complex is it that U.S. President Bill Clinton publicly urged the EU to delay the euro introduction until after the millennium.

While HP's prime business currency will remain the U.S. dollar, significant changes will be needed across the company. HP Europe is facing up to these challenges. Its task force was set up in March 1997 and already has outlined what needs to be done:

Stage 1: assessment and strategy definition (completed)

> *While HP's prime business currency will remain the U.S. dollar, significant changes will be needed across the company.*

Stage 2: planning (completed in October 1997)

Stage 3: changes to HP's systems (began taking place in November 1997 and concludes in December 1998)

"HP will be ready to operate in euros from 1 January 1999," Jean-Francois says. "It is a big challenge, but we will be ready on time."

An important part of HP's strategy is to work with customers, partners and suppliers to ensure that everyone moves forward together.

Everything you've always wanted to know about the euro

To learn more about HP's preparation for the euro, check out the intranet site at http://osiris.grenoble.hp.com/euro.

"As a major IT company with a record of innovative management, we can help our customers identify and manage the strategic and practical issues involved in the changeover to the euro," Jean-Francois says. The move to the euro has big implications for future products such as keyboards, fonts and display, video and printer drivers, etc.

"HP is active in the world's standards bodies," says Michael Ksar from HP Corporate Standards in Palo Alto, California. But Michael urges product divisions to consider the changes necessary. The impact of the euro will be much wider than just the practical changes needed to bring it about.

As Roger Wilson, HP's European Public Affairs manager in Geneva, says, "Europe's new single currency is the most important tangible development within the EU since the 1992 Single European Market program was launched. This complex undertaking should strengthen Europe's competitiveness, be a step-change toward ever-closer political union and cement the single market."

The idea of a single currency was agreed on by EU heads of state in 1992. Supporters claim it will cut the costs of doing business, create a new, strong and stable international currency and lead to greater political integration.

All in all, the euro should transform the shape of the EU and international trade on a global scale. HP's Public Affairs team, working with trade associations, has held high-level discussions with the European Commission in Brussels on the impact of the euro.

HP supports the economic benefits of the euro but is aware of some wider issues.

Countdown to the euro

• 1992: EU heads of state agree to form a single currency.
• 1996: design of new notes and coins agreed.
• May 1998: decision on which countries are eligible to join.
• May 1998: exchange rates of "in" countries fixed irrevocably during transition, and European Central (Reserve) Bank created.
• January 1999: the euro becomes an official trading currency.
• By January 2002: at the latest, new notes and coins are in circulation.
• By July 2002: at the latest, old notes and coins completely phased out and local currencies no longer valid for everyday transactions.

"Unless the euro is introduced into the right economic circumstances, less competitive countries unable to devalue their currencies could face higher unemployment," Roger says. "It is important that the introduction of the euro is accompanied by certain social, structural and market reforms."

"Nearer the time of the euro launch, we also will have a big job to do explaining to HP people in Europe what the euro means for them personally, whether they live in the 'in' countries or the 'out' countries," Jean-Francois says. "Some will clearly be paid in euros as soon as notes and coins are in circulation." **M**

(Claude Randall is a London, England-based free-lance writer.—Editor)

Have you noticed that the Internet has turned into a commercial wonderland? From bakeries to boutiques and banks to brokers, you can conduct practically any financial transaction in the wired world. All you need to do is put

Money in motion

by Grace Razo

Money has never moved so fast. Zap! In an instant, you can buy epicurean delights or a Donna Karan designer wardrobe, transfer bank funds to your Swiss bank account and trade on the New York Stock Exchange.

You even can buy an HP LaserJet printer through the HP Commerce Center at **http://www.interactive. hp.com/hpcc**.

Yup. The birth of the browser has brought about a whole new era—one of electronic commerce. And this is just the beginning.

International Data Corporation (IDC), a technology research firm in Framingham, Massachusetts, predicts that e-commerce will increase to $20 billion in 1998, almost triple 1997's $7 billion. By the year 2001, the volume will increase to $220 billion.

But hold on a minute. What exactly is e-commerce?

Cruising cashless

Sailors aboard the USS Yorktown are on, you could say, a pretty smart ship.

That's right. The cruiser is a pilot in the U.S. Navy's Smart Ship Project that uses innovative technology to reduce staff, increase safety and improve life aboard ship.

But not only is the ship smart; so is the crew. Why? Because it uses VeriFone smart cards.

With a stored value of up to $200, sailors use their "electronic purse" to buy anything from snack foods and drinks to T-shirts and supplies.

Smart cards have increased productivity on board the ship now that sailors aren't needed to collect and count cash for onboard purchases. Not only that, but the 370-member crew has taken to the smart card with enthusiasm. In 15 months, the crew has made 350,000 transactions, says Bill Mangino with Product Technologies, Inc. (PTI), a VeriFone partner and software developer. PTI specializes in cashless payment solutions based on smart-card technologies.

"That transaction number is phenomenal," Bill says.

For online information about VeriFone's Smart Card solutions, visit its Web site at **http://www.verifone.com**.

U.S.S. YORKTOWN (CG48) U.S. NAVY

The 567-foot battle cruiser USS Yorktown is fitted with the latest in technology as part of the U.S. Navy's "Smart Ship" program.

"Admittedly," says Ed Muns in HP's Extended Enterprise Business Unit, "there is confusion over (Internet) terminology in this emerging market."

But HP has gone to some lengths to clearly define many of these Internet terms.

HP describes e-commerce—a major portion of its overall Electronic World strategy (see story on page 13) —as the electronic exchange of value for goods and services. E-business, on the other hand, is broader than e-commerce. It's the way a business deals with its distributors, suppliers and customers. And e-consumers are people who use information technology at home for entertainment, learning, work and shopping.

Then there are the media and HP competitors who use the terms e-commerce, I-commerce and

The muscle HP has built in its union with VeriFone packs a powerful punch.

e-business interchangeably to discuss any company with Web presence.

E-gads! What's with all the buzz-words?

Beyond the marketing hype and fuzzy definitions, merchants, businesses, financial institutions and consumers are taking advantage of this evolving electronic era.

With more than 48 million Web users in more than 200 nations, commerce without currency is a market with huge potential. IBM—the prickliest thorn in HP's e-commerce side—has spent $200 million on an e-business ad campaign touting its e-wares. Like HP, it has a host of e-commerce goods and services, from infrastructure hardware to security solutions.

But it does not have the one mighty trump card

Lieutenant Commander Jerry Johnson (right) uses his smart card in place of cash to purchase supplies from Ships Service Seaman Aaron Cook, who runs the ship's store. The USS Yorktown uses a closed-loop program, which means smart cards can be used only onboard.

Money

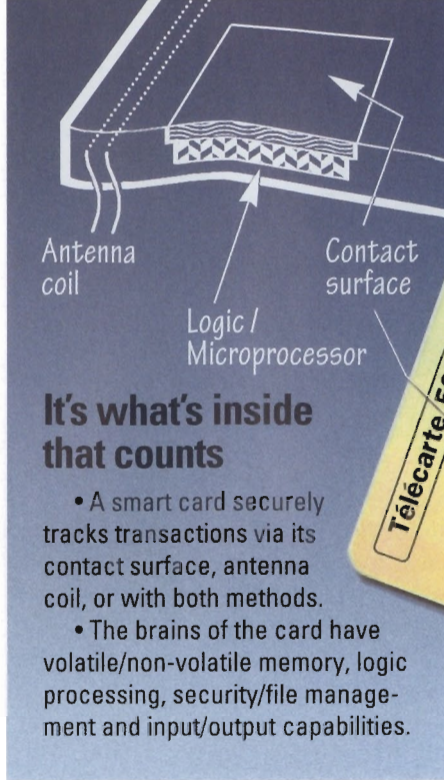that HP has: VeriFone. And you can't talk about e-commerce without talking about VeriFone.

The muscle HP has built in its union with VeriFone packs a powerful punch. That's not the company line. It comes from Killen & Associates, a Palo Alto, California, research firm that deals in e-commerce.

VeriFone—with its 80 percent market share of e-payments—recently introduced the PATM (personal automated teller machine) payment appliance. It will allow consumers to shop and bank from their homes through the Internet and, eventually, through a TV set-top box or a phone. Soon, consumers will have a choice of using their credit cards or smart cards for credit and debit transactions.

Smart cards are plastic cards about the size of a credit card with a computer chip embedded in them. The chip stores a dollar value, which allows consumers to make purchases. It's the best alternative to cash and coins for both consumers and merchants, says Gary Blume, business-development manager with VeriFone's Chip Card Adoption Team.

If you live in the United States, where smart cards are not as common, it might surprise you that there are more than 90 smart-card programs in operation

It's what's inside that counts

- A smart card securely tracks transactions via its contact surface, antenna coil, or with both methods.
- The brains of the card have volatile/non-volatile memory, logic processing, security/file management and input/output capabilities.

around the world, mainly in Europe and Asia Pacific.

Despite snazzy e-innovations and cool company strategies, there are still challenges ahead on the cyber-commerce skyline.

For starters, there's the problem of security. Simple connections to open networks expose credit card and financial information, as well as home computer files, such as household spreadsheets, to outside access.

"I think security is by far the most important thing, not only for banks, but for customers when doing Internet banking," says HP customer Paul Lo, president of Bank Sino Pac in Singapore.

HP has made a huge leap to enable the safe movement of money over the Internet by strengthening encryption—the building block for other e-commerce security techniques, such as authentication, authorization and integrity.

"With VerSecure, HP offers a technology that accommodates the government's policy objectives and still provides users with the kind of encryption they need and want."

Smart cards, like this one shown full size, represent the beginnings of a cashless e-world.

In February 1998, the U.S. government granted HP approval to export its VerSecure encryption technology —the computer industry's most comprehensive technology for controlling international data security and integrity —to the United Kingdom, Germany, France, Denmark and Australia.

CEO Lew Platt says, "Until now, one of the biggest obstacles to e-commerce has been the lack of security for Internet-based transactions on a worldwide basis. With VerSecure, HP offers a technology that accommodates the government's policy objectives and still provides users with the kind of encryption they need and want."

Formerly the International Cryptography Framework, VerSecure technology—**http://www.hpconnect. com/versecure/html**—allows users to select levels of encryption and security according to their needs and their government's regulations.

Besides security, privacy is another crimp to work out. While security pertains to the safe transport of data, privacy deals with protecting the usage of a consumer's personal information.

Granted, privacy problems have been around for eons. Why else do you complain about all that junk mail?

HP builds the electronic world

Competition is fierce. HP opponents are the usual technology big boys—some of which have strategized like heck for a top spot in the end-all-be-all e-solution landscape. IBM has been the most aggressive, with a $200 million ad campaign for "e-business." How will HP distinguish itself from the rest of the acronym and non-acronym brat pack?

By entering the construction business.

Equipped with a robust Internet strategy, HP has rolled up its sleeves to build—yes, build—a brave, new electronic world.

The foundation of HP's electronic-world strategy is the Extended-Enterprise infrastructure. Connect three new easy-to-assemble building blocks—e-business, e-consumer and e-commerce—to this framework, and HP has hammered together the Electronic World. HP insiders are saying this Electronic World structure is unlike any other in the industry.
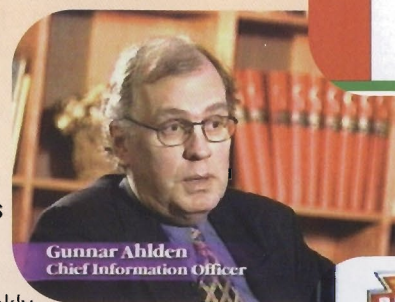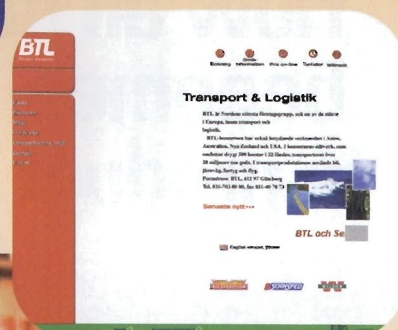
"None of our competitors has anything that can compare to HP's (Electronic-World) strategy," says Dick Watts, vice president and general manager of the Computer Sales and Distribution Group. "Not IBM—it's too focused. Not Sun—it's too Java.™ Not Dell—it's too much about price. HP has it all."

It seems this is true for transport and logistics company BTL, an HP customer in Goteborg, Sweden. BTL wanted to provide Web-based service for customers to get information about their cargo. This meant linking 500 sites worldwide to a network that was in operation at all times.

"We have to have solutions that never stop," says BTL Chief Information Officer Gunnar Ahlden. "Information has to move as quickly as cargo, which moves overnight. So far, uptime with HP equipment has been 100 percent."

Get more information on HP's strategy, "HP builds the electronic world" at the Computer Organization's Web site: http://co.hp.com/programs/eworld/.

Gunnar Ahlden
Chief Information Officer

COURTESY JAN SMITH / "MASTER THE GAME"

The Web, however, has escalated pressures and made people feel more vulnerable, says Judy Kincaid, manager of Customer Information Management Services (CIMS) in HP's Corporate Marketing Services.

Do companies have the ability to guarantee that personal and unrelated information is not unnecessarily disclosed? How do you ensure an individual's right to privacy without sacrificing the benefits that e-commerce affords?

The European Community initiated a privacy policy in 1995. But HP leads an industrywide movement to avoid government regulation and has made strides in three distinct areas: internal focus by developing a privacy statement—http://www.hp.com/ahp/privacy/privacy.htm—aimed at customers; joining the U.S. Department of Commerce and other industry leaders to produce an agreed-upon seal (like the Good Housekeeping Seal) as a way to protect industry's ability to self-regulate; and producing secure HP products, such as HP VerSecure, Virtual Vault and Authorization Server.

If you don't think this is serious stuff, think again. The U.S. Federal Trade Commission (FTC) already has started identifying the top Fortune 500 companies that don't have clearly stated privacy statements posted on their Web sites. And it doesn't end there. The FTC also will check to see whether the statement gives customers a choice about how their data is used.

Judy says if the FTC's overall assessment determines that industry is not adequately protecting consumers' interests, then it will advise the administration to take a stronger regulatory approach.

"People don't realize the importance of privacy," adds Pete Metrulas, CIMS data resource manager. "It's a key enabler to e-commerce and will have a dramatic impact on how we can conduct business over the Internet." **M**

How an idea becomes a product

From brainstorm to the marketplace, the path of HP's new JetSend technology illustrates some of HP's greatest strengths.

By Jane Middleton

Appliance Family department members, Fraser Dickin (left), Peter Williams and Sophy Thomas enjoy the old farm and cottage HP agreed to leave standing on the site at Bristol Labs in England.

Early in 1992, Senior Vice President and Director of HP Labs Joel Birnbaum challenged his staff to be more ambitious in their goals and bolder in their vision. He urged them to develop initiatives that would create new opportunities for HP.

That's roughly around the time Bill Sharpe, then director of the Personal Systems Lab at HP Labs Bristol, England; Bill Baddeley, HP Labs program manager; and Peter Williams, senior technical contributor, started talking seriously about the potential benefits of making peripheral devices, such as printers and scanners, that could talk to each other.

In June of that year, the HP Appliance Family was created to develop the overall architectural ideas that would become JetSend. The plan was to leverage HP's strength in peripherals and to deploy existing HP technologies differently to restructure the market. The challenge was how to introduce a radical new system architecture into mainstream HP business.

For the next five years, teams of people from several divisions on two continents (although most of the "heavy

...although people actually might need something like JetSend, they don't know they need it. It is, quite literally, beyond their imagination.

At the historical site in Bristol, England, where many charters have been signed, Bill Sharpe (left) and Peter Williams brought their team here to sign up for the JetSend proposal.
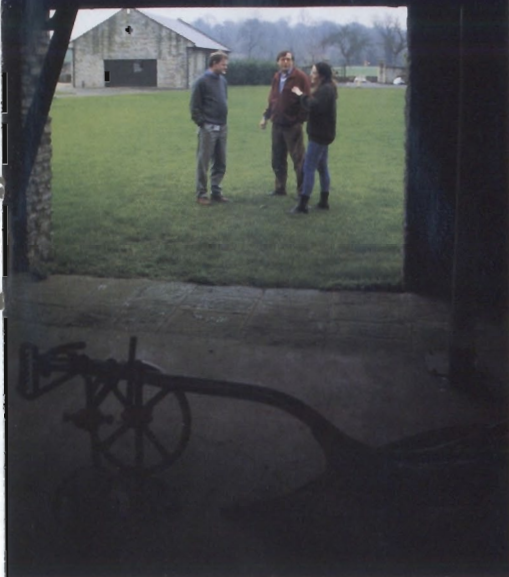
lifting" was done by the Information Appliance Operation in Boise, Idaho) would work to make this vision a reality. In July 1997, HP took a giant step forward with the introduction of its JetSend technology, which enables devices (printer, whiteboard, projector, etc.) to communicate without having to know a lot about each, no matter who manufactured the device. This model contrasts sharply with the PC-centric network in which the computer must have a specifically coded driver for each peripheral with which it interacts.

In the spring of 1993, the Appliance Family demonstrated a seemingly random group of networked devices—a whiteboard, video and digital still cameras, projector, fax machine, printers, and desktop and portable computers —all interacting freely without pre-configuration.

Overall, the product managers who went through the demo liked what they saw and were willing to incorporate the technology once it had been widely adopted. But no one wanted to be first. There were two primary reasons for this. First, the team was ahead of the demand curve. It is much easier to generate funding for projects that tweak proven technologies. Known products produce benefits the customer has already identified—twice the dots per inch at half the price, for example. By contrast, although people actually might need something like JetSend,

they don't know they need it. It is, quite literally, beyond their imaginations.

Second, a product such as JetSend requires a system-level perspective. HP has focused more on developing great individual products, and the company's structure reflects this focus. HP's culture, which encourages its groups and divisions to function with as much autonomy as possible, serves the company well under most conditions. But when you get to decisions that cut across division lines, that autonomy works against the developmental momentum.

The fact that the Internet Solutions Operation group (later renamed the Information Appliance Division—IAD) had no product of its own made its job doubly difficult. This really goes against the grain of a culture in which innovation is created by empowered teams that find and develop their own markets.

The result was that the JetSend team worked for a full three years without knowing how or when they would actually get to market—all the while hoping no one else would get there before they did.

Making things even more problematic was the decision to develop JetSend as an "open" protocol rather than as proprietary technology. This generated criticism from some HP employees who believe the company shouldn't give away its competitive advantage. The development team, however, always has believed that JetSend would need just the right context within the industry and that it would be successful only if it were widely adopted. Ironically, the fact that JetSend was developed in-house only increased resistance: The divisions wanted to see JetSend adopted by other manufacturers first as proof that it was an industry standard.

At a high-level meeting in 1994, a top-level executive expressed real interest in the project (then code-named Opus).

At that point, the LaserJet Solutions Group (LSG) in Boise reconsidered future directions for the division to a more specific investigation of how they might implement the new technology into products. Bristol was invited to contribute its related work in network hardcopy integration. Bristol was happy to assist LSG, but even as work was under way in Boise, the Bristol team decided to build a working system of network-connected scanners and printers designed to communicate over long distances. Rather than use a LAN connection (as Boise was doing) between a scanner and a printer to build a "logical photocopier," the Bristol group decided to use the Internet to connect a scanner and

a printer—to build a "logical fax machine." So, while it was helping Boise investigate how hardcopy products might best exploit the coming of the totally networked age, Bristol also was building and deploying a complete system to test the customer value of remote-but-direct device connection.

Steve Lieske, R&D section manager in IAD, was given the assignment of assessing the implications the Labs' work had on LaserJet products. He formed a small group made up of one person from each of the half-dozen divisions in LSG. Six months later, they emerged with a proposal targeting LSG products that should adopt JetSend. Steve commented, "It was very big in concept, and we knew it would be very difficult to make that big a change or impact on the industry, but we were very excited."

For more than a year, work went forward with neither release date nor

> *"JetSend gets its value, as do all communication technologies, from being adopted in lots of products— HP's and others."*
> **Bill Sharpe**

While one team tackled JetSend development on one side of the ocean, Anthony Sowden (left) and Bill Sharpe focused on an Internet solution in Bristol.

In Boise, Idaho, Warren Greaves (left), Tena Kalisek and Steve Lieske work with a larger team on the JetSend project.

JetSend engineers (from left) Gorla Nagarjuna Reddy, Chadra Mouli and Kumarasamy Elango work in HP's India's Software Operation in Bangalore.

JetSend helps set up data transmission at the best possible resolution, compression, color space and color depth.

Without JetSend

With JetSend

The JetSend universe brings intelligence to appliances so they communicate with each other without need for human intervention.

introductory vehicle. The division held off announcing JetSend until it had enough partners on board to enhance the chances for success. Betting the works that another developer would not slip in ahead of them was a huge risk. If that happened, the game would be over.

Finally, in July 1997, HP issued a press release announcing a technology that provided "simple device-to-device" communication. To emphasize the fact that JetSend was a communications technology, the release mentioned no product by name. The release said only that the technology was being incorporated into future products by HP and others.

Two months later, the first JetSend-enabled product, the HP LaserJet 4000 printer, won *Byte* magazine's overall "Best of Show" award at Comdex. A *Byte* magazine news editor acknowledged in a recent interview that it was JetSend that clinched the award. "The thing that pushed it (the HP LaserJet 4000 printer) over the top was its

implementation of the JetSend protocol. We like JetSend's capability of allowing network devices to talk to each other without using the computer as intermediary. We think it has the potential to simplify the exchange of information."

To say things have gone well for JetSend in the months following its introduction is an understatement. HP has begun licensing JetSend to developers for a one-time $15,000 fee and already has produced a JetSend developer's kit. Major industry players, including Canon, Cisco, Ricoh, Matsushita/Panasonic and Xerox, have licensed the technology.

However, JetSend is not without its critics, and real questions remain. Some skeptics believe users will never be enticed from the current model of a PC-centric network. Others believe consumers never will sacrifice the efficiency of an interface designed to link two specific devices. In rebuttal, proponents of JetSend point out that a universal language that allows unfamiliar devices to share information will be a basic necessity in the totally networked environment of the future.
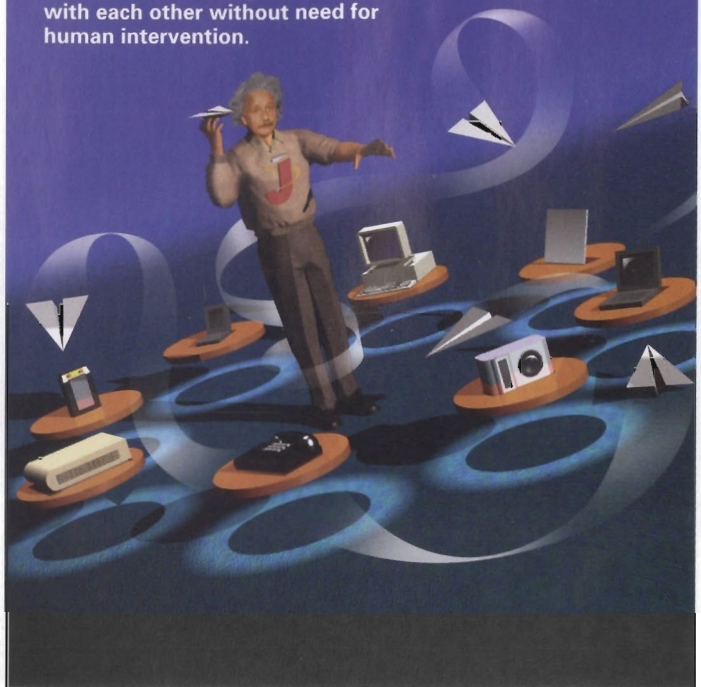
The ultimate success of JetSend depends on achieving critical mass. The whole point of the initiative was to create more opportunities for HP

to do what it does very well, which is build great products. "Our vision," says Bill Sharpe, "was to give each product designer more freedom, to add value because each product works with lots of other products. We need to continue to build momentum in the computer and consumer fields for this to be adopted pervasively. But the most important thing now is that HP gets going on building new products that use that freedom. Because you don't make money out of an architecture." **M**

(Jane Middleton is a San Francisco Bay Area freelance writer.—Editor)

Fly me to the moon

HP's Electrical Test Set helps the Lunar Prospector on the first NASA mission to the moon in 25 years.

By Sam Chu Lin

Even at age 4, Alex Marcopulos knows that there's something mysterious—and marvelous— about going to the moon.

"Every time Alex looks at the moon, he says, 'There's where the Lunar Prospector is going,' " says Alex's dad, Ted, the solutions architect for the HP Lunar Prospector Electrical Test Set. "Alex can describe the launch perfectly—everything."

The fascination with the moon seems to run in the Marcopulos family. Ted, who's based in Mountain View, California, took his family on vacation to Florida—near the Cape Canaveral launch site—at the precise time the Lunar Prospector was to be launched.

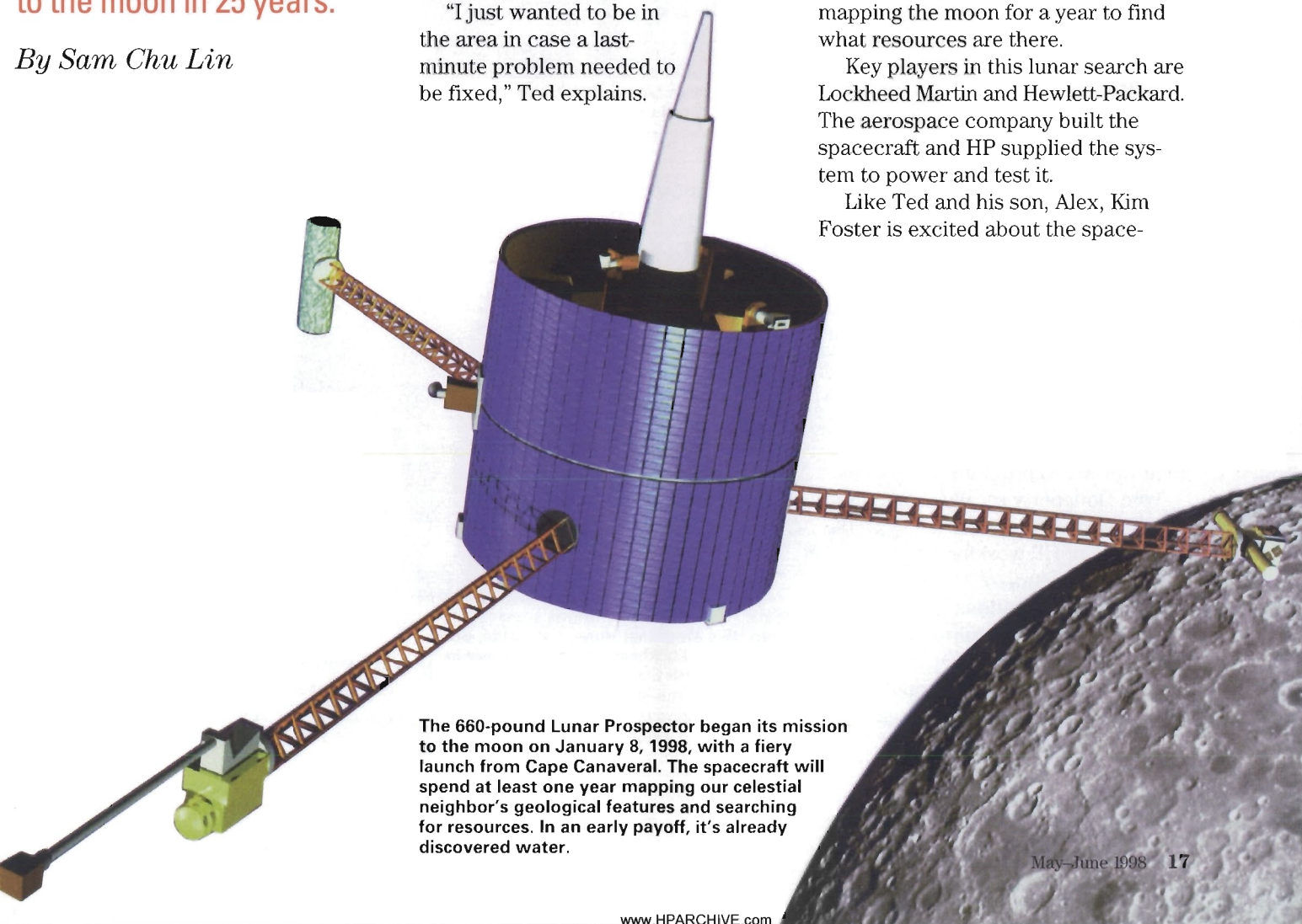"I just wanted to be in the area in case a last-minute problem needed to be fixed," Ted explains.

That was in January 1998. Within two months, reporters filled the auditorium at NASA Ames Research Center in Mountain View on March 5 for a news briefing on discoveries the Lunar Prospector spacecraft had made.

"We are certain there is water there," announced Dr. Alan Binder of the Lunar Research Institute, the mission's chief scientist. "The implications are tremendous. We can go to the moon and use this water as a propellant to go to Mars and elsewhere in the solar system. We could have a lunar base in 10 to 15 years."

The spacecraft's neutron spectrometer detected the presence of water/ ice at both lunar poles. Prospector is mapping the moon for a year to find what resources are there.

Key players in this lunar search are Lockheed Martin and Hewlett-Packard. The aerospace company built the spacecraft and HP supplied the system to power and test it.

Like Ted and his son, Alex, Kim Foster is excited about the space-

The 660-pound Lunar Prospector began its mission to the moon on January 8, 1998, with a fiery launch from Cape Canaveral. The spacecraft will spend at least one year mapping our celestial neighbor's geological features and searching for resources. In an early payoff, it's already discovered water.

craft's voyage. Kim, a Lockheed assembly integration and test manager, cleared the Athena II rocket with its special payload for the January 8 launch. "To have it finally get where it is, working like it is, and to fulfill its mission—you can't ask for any more," he says.

A handful of people worked on the $63 million project. From design to completion, the spacecraft flew in 22 months.

"To have it finally get where it is, working like it is, and to fulfill its mission— you can't ask for any more."

Mark Triolo, who works in field sales for HP's Test and Measurement Organization, had met with Tom Dougherty, Lockheed Martin's Lunar Prospector program manager, and explained that HP is more than an instrument supplier.
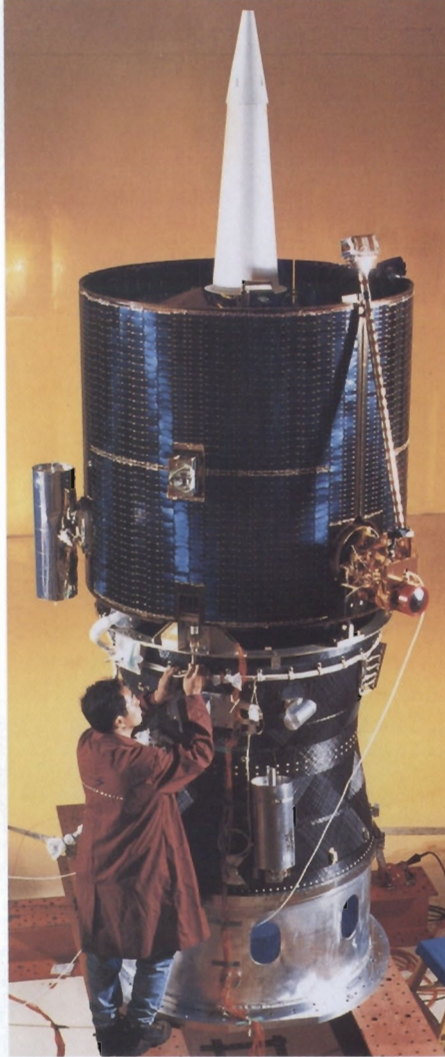
"We talked about his concerns about outsourcing the test support equipment —something they normally would have designed and built themselves," Mark says. "He felt that HP's capabilities—compatible technical expertise, available resources and staff, and flexibility—were a great fit for this program."

Tom Dougherty recalls, "When Mark offered the possibility of HP working with our engineers to define the specifications for the test support equipment, I grabbed it."

The companies signed a contract in July 1996. HP set up a virtual team to

The fully assembled Lunar Prospector sits atop the Trans Lunar Injection stage, which detached about one hour after launch.

Mark Triolo (left), a solutions specialist from HP's Mountain View, California, office, talks with a Lockheed Martin engineer in front of the HP Electrical Test Set. The customized, off-the-shelf equipment allowed rigorous testing of the craft's electronic structure and payload of sensors and instruments.

coordinate the test system's design and construction. Mark and Ted were in Mountain View, close to Lockheed Martin in neighboring Sunnyvale. Boyd Troop and his colleagues at HP's Test Solutions Operation in Loveland, Colorado—a part of the Solution Services Division—designed and built the Electrical Test Set. Pam Bothello at HP's San Diego, California, sales office, managed the team and a third-party software vendor in St. Louis, Missouri.

The team delivered the test equipment in four months—two days ahead of schedule.

Still, there were challenges.

"We were on such a short schedule," Kim says. "We had to design the spacecraft and the test equipment concurrently."

Daniel Swanson, a staff systems engineer at Lockheed Martin, says, "The test equipment that Hewlett-Packard provided to us worked extremely well. It was a relatively simple test system, but it tested the spacecraft the way we needed it to."

Lockheed Martin had emphasized ease of use with off-the-shelf equipment.

"Lockheed was not afraid to ask for last-minute design changes," HP's Boyd Troop says. "Although it was a challenge for us to get it done in time, we knew they needed it."

Following delivery, the electrical engineer says, the Lunar Prospector encountered a problem when it was

In this artist's conception of future lunar exploration, two astronauts mine resources such as water and minerals. They use the solar arrays at the top left to supply power for their roving vehicle (foreground) and their home away from home (top right). The globe-topped craft to the left of their hatitat will carry the astronauts back to earth. Robotic missions will take place before humans return to the moon for the first time since the Apollo 17 voyage in 1972.

first powered up. The solar array simulator started doing unusual things. The simulator began to drain Lunar Prospector's batteries and needed a set of blocking diodes to prevent reverse current from going back through the craft.

"Ted came out and worked almost continuously for about two-and-one-half days," Kim said. "He created and implemented the solution so it could be put into the console. It worked famously from that point on."

NASA Mission Director Scott Hubbard adds, "HP contributed the test equipment that we used to validate how the spacecraft was going to perform. What we see now is that all the simulation and all the testing really paid off."

Lockheed Martin soon will use the HP Electrical Test Set to prepare the new IMAGE spacecraft for its January 2000 launch. Another in the series of Discovery missions, IMAGE will study the earth's magnetic fields.

To follow the Lunar Prospector's progress, click on the official Web sites at **http://lunar.arc.nasa.gov** and **http://ccf.arc.nasa.gov/dx**. M

(Sam Chu Lin is a free-lance writer, based in Sunnyvale, California. —Editor)

ROGER ARNO / NASA

Technology: the latest medical marvel

Armed with cell phones, laptops and pagers, HP's Medical Products Group sales team in India operates at peak efficiency.

By Betsy Brill

NEW DELHI, India—To the HP Medical Products Group (MPG) in India, the concept of team is so pervasive that when you get the sales team together in one room, they're likely to complete one another's sentences.

That's impressive, given the vast geography the 42 people cover and that among them they speak 10 languages. English is the one they share.

"By all the rules, this team should have had a very rough year in 1997," says Mike Blomeyer, MPG general manager for Asia Pacific. "In a matter of weeks, they virtually doubled the size of the team, trained them in our products and HP processes—melding them into a very tightly knit team that overachieved all expectations. This is remarkable."

It was so remarkable that the team recently won the Best Country Award in HP Asia Pacific for the 1997 fiscal year. In that same year, Satish Kakkar, customer support center manager, won the CEO Customer Satisfaction Award.

Innovative ideas are the sparks that ignite the MPG team. In a country where making a telephone call can be a challenge, MPG has used technology to unite the far-flung professionals and create a tremendous competitive advantage. Two years ago, India Country Manager Anjan Bose invested almost 10 percent of his budget in cell phones and palmtop and laptop computers. Each team member, administrative assistants as well as sales people, has a pager. This heavy investment in technology is uncommon among HP's competitors in India.

> *This heavy investment in technology is uncommon among HP's competitors in India.*

"The technology has made us so much more resourceful," says Sanjay Bapna, western district manager. "To cover the territory we would take three times the number of people in any other company."

Doing business in India is not simple. To make a phone call from outside the office usually means waiting at one of the many street booths, particularly if you want to make a long-distance call. "You just don't ask a customer to use his phone to make a long-distance call here," Sanjay says.

KEN KOBRE

HP India's Medical Products Group team members strategize on their next business deal while the "Gateway to India"—built by the British in 1924—shines in the background. Shown left to right are Ashutosh Moghe, Pervez Vandrewala, Nikhil Kulkarni, Sanjay Bapna and Suzanne Salvez.

City-to-city calls cost around $1 a minute. Train travel is slow, and traveling on the roads is difficult at best. In Mumbai (formerly Bombay), for example, covering just about any distance in a car can take two or more hours.

"With our cell phones and laptops, we use all that travel time for work," says Pervez Vandrewala, western district customer-support manager. Mumbai team members in the field call administrative assistant Suzanne Salvez, who prepares bids and sends them via e-mail or fax—greatly reducing the time it used to take to get estimates to customers.

Because she's frequently in the office alone, when Suzanne gets a lead, she prepares a bid and sends it to the appropriate sales engineer—often before he even knows about it. (Country manager Anjan Bose calls all the regional administrative assistants vital hubs.)

The resulting responsiveness to customers clearly has turned some heads. Last fall, the Mumbai team heard that a potential sale was likely to go to a competitor. Four of them rented a car and driver to take them to Pune, six hours away. They refined their strategy en route and then fanned out into the hospital, each to meet with key staff members.

Then the team gathered the entire group in a meeting in which they used their own cell phones for a conference call with Anjan in Delhi. With everyone there to address the customer's concerns, the CEO approved the U.S. $300,000 sale on the spot—a very large deal by Indian standards.

In Delhi, a potential customer called at 3 p.m. one day and said, "I have to know this afternoon whether you can meet this price and these technical specifications." Before the line went dead, cell phones started buzzing. Huddled over laptops, the geographically dispersed team "met" by phone and figured out how to make it happen. By 7 p.m. that night the U.S. $200,000 deal was signed, sealed and delivered.

Regardless of where its people are located or what languages they speak at home, there is one word heard wherever the HP Medical Products Group works in India: seamless. "There's no distinction between administration, sales, marketing or support," one after another of the group members says when the question of teamwork arises.

Seamlessness, they all insist, is their secret to being a winning team. And technology is the tool that ties them together so smoothly. **M**

(Betsy Brill is a San Francisco-based free-lance writer.—Editor)

KEN KOBRE PHOTOS

Getting to the heart of the matter

A cardiac surgeon in India uses compassion and HP medical gear to bring life-saving treatment to thousands of people.

BANGALORE, India—The doctor, who prefers to be called a social worker, locks his eyes with those of his visitor.

"Do you know how many people in India need heart surgery each year?" he asks. Without waiting for a response, he answers his own question. "Nearly a half-million. Do you know how many can afford it? Only 30,000. The rest face slow, painful deaths."

His body language as taut with intensity as his unblinking gaze, Dr. Devi Shetty, cardiac surgeon and vice chairman of the Manipal Heart Foundation in Bangalore, India, is passionately describing his vision to make sophisticated heart surgery available for millions of Indians who can't afford it.

Although India is a developing country, you see some of the world's best-trained doctors practice medicine there. First-class medical treatment is available in several private hospitals and institutes in India, but

only about 10 percent of the country's population can afford it.

Dr. Shetty hopes to change that.

At Manipal Heart Foundation, the doctor and his team have lowered the cost of some of the most advanced surgery in the world below that of treatment even in the country's government-run hospitals. In addition to seed money from the Medical Relief Society and innovative infrastructure designs that reduced construction costs and increased efficiency, the key to Dr. Shetty's success is a team as dedicated as he. He doesn't charge a fee when he performs surgery on children and teachers. All his doctors charge just 20 percent of what their counterparts at upscale institutes charge.

The 42-year-old physician, who easily could be mistaken for a movie star playing the role of a surgeon, is not acting when he describes the commitment he demands—and receives— from the people and suppliers who work with him. HP India's Medical Products Group, he says forcefully, is a key part of his team.

Dr. Shetty describes how, in the next seven to 10 years, he plans to set up heart institutes serving "the common man" in the capitals of each of India's 25 states. Seeing what he has accomplished in just six months in Bangalore, no listener can doubt that he will achieve this goal.

Another institute will open in Goa in the next six months, another is under construction in Calcutta and a proposal is under consideration in Mumbai (Bombay). There also is little doubt that HP medical products will continue to help diagnose and monitor Dr. Shetty's patients in coming years.

In setting up the B.M. Birla Heart Institute in Calcutta nine years ago, Dr. Shetty installed HP medical products throughout the state-of-the-art center. One of his trusted team members there for six years was HP support engineer Tapabrata "Tapa" Bhattacharyya.

When word spread that the physician was going to leave Calcutta to open a radically new institute in Bangalore, Tapa consulted with HP Country Manager Anjan Bose and transferred from Calcutta to Bangalore. In fact, Tapa was awaiting the doctor upon his arrival—the first member of Dr. Shetty's new team to be in place. Today, $1.5 million worth of HP products have replaced competitors' products, which were used by the hospital in which the new institute is housed.

"It's the relationships that count," Dr. Shetty says. "I need people on my team who understand that we are working on a mission—a divine

mission—to save people's lives. The people at Hewlett-Packard understand my concept. This is more than a business venture."

Acknowledging the "excellent terms and conditions" HP has provided, Dr. Shetty in turn is committed to using the company's products throughout his planned expansion. And while HP is on the doctor's team, he plays a pivotal role on HP's team, as well. As an advisor to other hospitals and institutes throughout India, he enthusiastically endorses the products elsewhere.

"HP's products never fail," he says. **M**

—*Betsy Brill*

While HP's "Tapa" Bhattacharyya checks an HP medical monitor, Dr. Shetty examines one of his tiny patients on a routine visit at the Manipal Heart Foundation in Bangalore.

MEASURE readers share their views on matters of importance.

What's next?

I suppose the days of being socially responsible or a good corporate citizen are over at HP. I read your article "Betting on a sure thing" (March-April 1998) that describes how HP products are used at the New York-New York casino in Las Vegas. Now they know how fast granny is blowing her life savings.
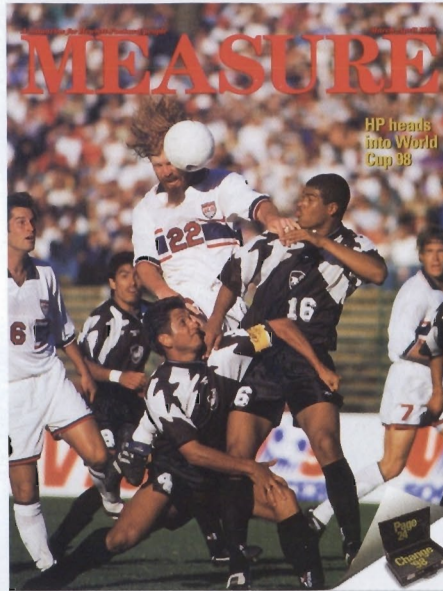
Does it matter that thousands of lives are destroyed each year by gambling ("gaming")? What's next? HP computers used to tally profits by the Mob? HP networks linking Planned Parenthood offices together to track the number of babies killed by abortion that day? HP palmtop computers used by Bill Clinton to keep a phone list of his favorite women?

JANE MUHLENBRUCH-YEE
Loveland, Colorado

Keeping up with the Smiths

David Price ("Beside myself," March-April 1998) should thank his lucky stars that no other David Prices work at his site. Forget the e-mail and voice-mail screw-ups; it's the physical mail that drives me nuts.

At the Corvallis site, I am one of four David Smiths (that I know of), but I always use my middle initial—L—to distinguish myself. Unfortunately, one of the four at my site also is David L. Smith, and we both go by Dave. Whenever either of us moves—a frequent occurrence in Corvallis—

the other person's mail ends up forwarded to the most recent move location.

The icing on the cake for me was the day the other David L. Smith reported his badge lost. When I arrived at work, I could not get into the building because my access card had been deactivated. Apparently, the security department has the same problem as the mailroom.

I would like to add another tip for sufferers of Multiple Name Syndrome: work on the East Coast. I used to work for IBM in East Fishkill, New York. At a plant of about 10,000 people, I was the only David Smith! In the local phone book, there was less than one page of Smiths, but more than six pages of Desanctis!

It was heaven having a unique name in a sea of heavily ethnic names.

DAVID L. SMITH
(InkJet Business Unit, not the Mobile Computing Division)
Corvallis, Oregon

To be Yung at heart

I was highly amused by the Multiple Name Syndrome article. I'm on leave of absence right now, but I was a SEED intern at HP in Corvallis last summer. I was lucky enough to be the only Melody Yung at HP, but my cubicle mate had a duplicate somewhere in California. That did cause a few mishaps during the beginning of the summer.

On the other hand, I found an entry for my sister in the PhoneWin directory. That was quite funny. Unless my sister's leading a double life, I know for sure she doesn't work at HP!

MELODY YUNG
Cambridge, Massachusetts

Finally, some respect

I enjoyed David Price's article; finally I get a little respect around here.

It may take me a little while to get used to being called "fungus" ("David Prices have proliferated in Hewlett-Packard like fungus on a wet lawn."), but at least it got me some attention.

DAVID PRICE
Greeley, Colorado

That's entertainment

I have not read a more entertaining article than "Beside myself" in a long time. I have been a culprit, sometimes sending messages to the right name but the wrong location. Also, I have been the recipient of messages which I know nothing about.

The author sure knows how to write with humor. David, keep up the good work. And MEASURE, how about more such entertaining articles?

AK-WING LEONG
Penang, Malaysia

Namely Singapore

I read with interest David Price's article about names.

In Southeast Asia, Malay and Tamil (these are ethnic groups predominant in our part of the world) names do not conform to the standard 'first, last' names. Names begin with the individual's name followed by his/her father's name. There is no family name. My name is Zakaria bin Abdul Gapor, which means that I (Zakaria) am the son of Abdul Gapor.

Socially, I would be addressed as Zakaria, and formally as Mr. Zakaria, not Mr. Gapor. Because of this, there are inconsistencies in both PhoneWin and cc:Mail address lists. Some have their father's name logged as the 'last' name, while others have their own name as 'last' name. So, you'll find Hanif, Hanizam in cc:Mail, but you'll get Hanizam Bin, Hanif in PhoneWin.

So, my advice is if you cannot find the name in one form, try the other.

ZAKARIA BIN ABDUL GAPOR
Singapore

The "holistic approach"

Your article on the "Healing island" (January-February 1998) emphasizes the benefits of combining modern medicine and alternative healing processes. Alternative medicine is not to be scorned at since these processes were developed by having an extensive understanding of nature, Mother Earth and to some extent, the universe.

Our sedentary lives behind a computer in air-conditioned buildings for long periods eventually take their toll. However, there is a simple way to overcome this and that is to get a

massage. It can be a half-hour head-and-shoulders, or a whole body with essential oils that will leave you feeling like you are ready to climb a mountain.

So don't hit the Panadol or the chip machine when you are stressed; instead, find the nearest masseur at your local gym or aquatic center or even your office building.

VERONICA QUINLESS
Melbourne, Australia

Yes, sir, General

I was pleased to see acknowledgment of HP's showing in *Fortune* magazine's list of "Most Admired Companies..." (March-April 1998). There appeared to be a small glitch, however, in the correct naming of the No. 1 company.

Your text said it was General Motors, but the photo of the magazine showed it was General Electric.

JOHN TENTOR (retired)
San Diego, California

*You're right, of course, John. Thanks.
—Editor*

Knowing the way

I really enjoyed your "From the Editor" message on page 2 of the March-April issue.

In November, I returned from a two-year military leave of absence. Along the return path, I took the time

to interview with some other companies, including Dell.

Yes, I got an offer and, yes, it paid more, but I never seriously considered it. Why? I sensed there was no such thing as a "Dell Way," and even if there were, it's not going to be the same thing. For companies like Dell and MCI, I really wonder where they will be a few years down the road.

Sure, they are flying high at the moment, but what happens when market conditions level off? It is the principles and values of the HP Way that have carried this company through the years...and that keep people like me on board. I know a good thing when I see it!

JOHN MANDICO
Colorado Springs,
Colorado

HP's chairman, president and CEO discusses his recent trip to Asia and how HP business is weathering the turbulent financial times there.

Many of you are aware of the economic crisis occurring in Asia today, but you may not know how it affects HP business there. In March, I got a first-hand look at five countries during a week-long trip to Asia, and I'd like to share my reactions with you.

As with many companies, we've seen a softening in parts of Asia this year. This concerns us because Asia had been one of our fastest-growing markets worldwide. Still, Asia represents only about 17 percent of HP's total business, so the overall impact on HP's bottom line is relatively small.

The countries I visited represent tremendous financial contrasts:

• **Singapore**. This island nation sits in the middle of the turmoil in Southeast Asia, and I expected to find a pessimistic mood there. Instead, I sensed a mood of real optimism.

Singapore isn't experiencing the dramatic currency fluctuations that neighboring Thailand, Malaysia and Indonesia are. It is a conservative-ly run country with strong engineering and manufacturing capabilities. It's also a prime location for many non-Asian overseas companies, including HP. So, in many ways, the climate is business as usual. However, many of Singapore's major trading partners have weak economies.

During my visit, I met with Minister of Education Teo Chee Hean and, in a separate speech, discussed "Change management in the enterprise" with 25 top CEOs. Both meetings were well received.

Overall, I see stability, growth and a bright future for Singapore.

• **Malaysia**. There was far less optimism in neighboring Malaysia, where currency devaluations are causing a true financial crisis.

Malaysia is a major manufacturing site for many large, overseas-based companies, including HP, which sell their products to world markets. We don't sell a lot of products in Malaysia, so the crisis has had a smaller effect on our business there. Actually, the currency devaluation makes it cheaper for multinational companies to manu-facture there now.

During my stop there, I met with Prime Minister Mohamad Mahathir for an update on the Malaysia Super-Corridor project, which is making good progress.

However, as a country, Malaysia has a much steeper climb out of its economic hole than many other countries.

• **South Korea**. The problems South Korea has faced in recent months have been well publicized. The country has serious structural problems, largely because it has been a closed, protected market. Big com-panies, financial institutions and the government are closely tied together. Companies in financial trouble haven't been allowed to fail.

Still, I left South Korea with a posi-tive feeling. The country has accepted a $57 billion loan from the International Monetary Fund and the government is actively trying to attract foreign investment.

During a rare Saturday press con-ference, I was the first overseas CEO to meet with South Korea's dynamic, newly elected President Kim Dae Jung. He has held deep-seated beliefs

Lew meets with South Korea President Kim Dae Jung.

I'm convinced that President Kim can lead South Korea successfully through these painful times. It probably will take two years and some strong economic medicine to make these structural changes, but I believe that South Korea fundamentally will emerge as a much stronger country.

HP had a U.S. $1 billion business in South Korea last year—our second-largest country for sales in Asia, behind Japan—and we have aggressive plans to expand our business there.
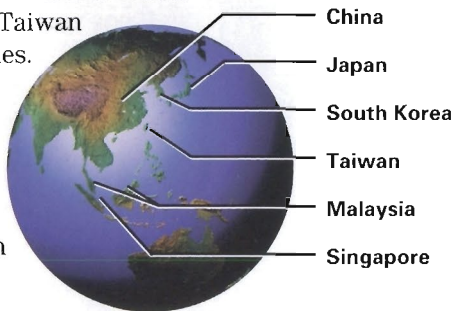
These U.S. $250 million plans include up to $100 million for a new headquarters building for HP Korea Ltd.; an increase in manufacturing capacity; and a new financing company that will make it easier for South Korean customers to buy or lease HP products.

• **Taiwan**. While South Korean business has suffered because of its closed market, business is booming in freewheeling, entrepreneurial Taiwan.

There's a spirit of unbounded optimism. HP people in Taiwan feel good about our ability to compete and prosper there.

I participated in an electronic-world forum and a National Taiwan University lecture series. It's clear to me that Taiwan's economic approach is wildly successful. The people point to their accomplishments with pride; open markets work.

• **China**. China also has averted the Asian economic crisis and is in quite good shape. It has a good internal, consumption-driven economy. People are buying clothes, appliances, automobiles and, increasingly, computer products.

I met with approximately 400 channel partners and key customers as the keynote speaker on "Building together the e-world" at a Megaforum event. I also had separate meetings with Mayor Xu Kuangdi of Shanghai and Dr. Jiang Mian Heng, the son of President Jiang Zemin.

The Chinese people are quite optimistic about the country's future economic growth; there's no change to the optimism I saw during my last visit there two years ago.

• **Japan** wasn't on my March travel itinerary, but deserves comment.

Japan has experienced a four- to seven-year economic stagnation, which is of great concern to us. We count on a stable Japanese economy because it's a growth engine for the rest of Asia. Even a modest increase in HP sales in Japan would offset much of the decrease we've seen in the other Asian countries I've mentioned.
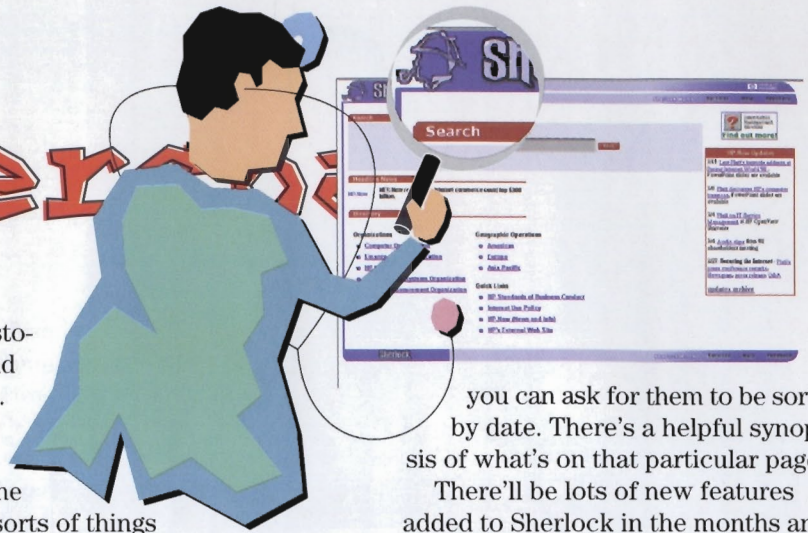
All in all, I'm still very positive about the long-term prospects in Asia. Some countries will need to go through a one- or two-year period of recovery, much like Mexico did a few years ago.

In the meantime, our plan for Asia is to continue to make strategic investments there to strengthen our position. We will do everything we can to keep our work force intact, and we'll continue to emphasize superior customer service. That should put us in much better shape when the economies turn around. As our success in Mexico has proven, a steady hand on the investment tiller can pay huge dividends.

1998 will continue to be a tough year economically for HP in Asia, but we have the global strength to weather this storm.

China
Japan
South Korea
Taiwan
Malaysia
Singapore

ASK Dr. Cyber

A new HP sleuth solves the puzzle of overwhelming data. And Browser Wars are coming to HP.

So you've had a spot of trouble finding a particular document on HP's intranet? It shouldn't come as a major shock to you, since the place you're searching is as big and confusing as London on a foggy night. Estimates by HP experts say there could be as many as 15 million documents posted on as many as 10,000 sites/servers today. E-gads!

Fortunately, you've got a famous consulting detective ready to help you find what you want. About one month ago, "Sherlock" (as in Sherlock Holmes) came to HP. The new HP intranet search engine is named after the 19th-century British sleuth made famous in Sir Arthur Conan Doyle's short stories and novels. Sherlock does the same sorts of things that AltaVista, Excite, Infoseek or Yahoo do for the World Wide Web. Sherlock takes your search words and brings you back relevant Web sites on HP's intranet. You can also expand your Sherlock search beyond HP's walls to the rest of the World Wide Web, if you're so inclined.

It takes a wee bit of practice to learn how to refine your searches. If you enter just "Lew Platt" in the search field, you'll end up with a whopping 3,020 sites to review. Fortunately, Sherlock's help function gives you lots of keen tips to narrow your search. By default, search results are sorted by relevance (Sherlock's, not necessarily yours). If you prefer, you can ask for them to be sorted by date. There's a helpful synopsis of what's on that particular page.

There'll be lots of new features added to Sherlock in the months and years ahead. So check out the Baker Street detective early, complete with pipe, hat, fingerprint and smoking gun, at **http://sherlock.hp.com**.

You've read the headlines about Microsoft and Netscape battling it out in the marketplace to offer the world's most popular browser software. That battle is headed for your desktop, and Microsoft is looking like the winner.

Netscape, the first "browser of choice" for HP employees everywhere, now has some serious competition on its hands. Microsoft's offering, Internet Explorer, is showing up on HP systems around the world ready for installation via the Application Installation Manager (AIM).

HP's experts say there are lots of advantages to switching to Explorer, including more compatibility with other Microsoft products. But they admit there are some disadvantages, too. For example, there isn't a version available yet for people using UNIX-system workstations.

While HP experts are working to eliminate the disadvantages, the prescription for most HP people: Explorer 4.0. You should switch early since Netscape is likely to disappear from PC-COE early in 1999.

If you want more, you can read all the gory details at **http:// pccoe.corp.hp.com/browsers/ BrowserStrategy.htm**. **M**

Looking for jobs in all the right places

In a prior column I told you just how popular the "Jobs at HP" section of HP's external Web site has been. And soon that external know-how will be helping you find internal jobs anywhere in the HP world. At the new HP Employee Job Searcher Worldwide Web site, **http://persweb.corp.hp. com/jobsearcher**, you can search for HP jobs in Asia Pacific, Canada, Latin America, Europe and the United States. The new Web-based tool lets you search, view and even apply for jobs online. Your resume and application will arrive in the hiring manager's e-mail the same day (unless you live in the Americas and you're applying for a job in Asia, in which case it's probably already tomorrow there). The new Job Searcher function replaces the antiquated LOIS system in the United States. It's about time she retired!

Finally, if you've found a site that makes your HP job easier, send me a note at **doctorc@corp.hp.com**. And be sure to visit my online clinic at **http://hpnow.corp.hp.com/use/ drcyber/index.htm**.

Kids have a grand time playing games on HP computers while waiting in the Dallas-Fort Worth airport's Admirals Club playroom.

Travelers get wired

Have you ever needed to check e-mail, update a proposal or print a presentation while on the road, but didn't have the right connections?

HP and American Airlines put their bandwidth together to solve these problems. They now offer Admirals Club members the home-away-from-home virtual office.

Offered by the HP Greeley Division in Colorado, these HP Business Centers—equipped with HP

PCs, laptop computers, printers, copiers, e-mail and the Internet—were installed in 30 Admirals Clubs in the United States during the last six months. And they're already a hit.

"The HP Business Center was a godsend to me during a recent business trip," says traveler Nancy Coldham. "I used the Center to complete and send an important report to a client."

But business travelers aren't the only ones benefiting from HP equipment. Globe-trotting kids enjoy HP Pavilion 8260 personal computers, which were installed in the Dallas and Miami Admirals Club's playrooms in February.

Hip, hip hurray

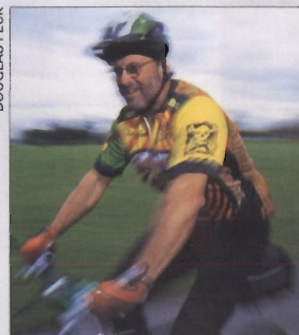NEWARK, California—Herman Birenbaum does not let much in life slow him down.

Certainly not his 140-mile, three-hour daily commute, nor the double-hip replacement he had in 1996 to repair bone degeneration. And definitely not the 563 miles he will ride from San Francisco to Los Angeles in a California AIDS Ride in May—a few short years after he learned to walk again.

Herman, in his 50s and a senior technical engineer in HP's Communication Semiconductor Solutions Division in Newark, California, says, "The

Herman rides again.

first time I rode my bike (after the surgery) I was scared to death. My fear was that I'd fall."
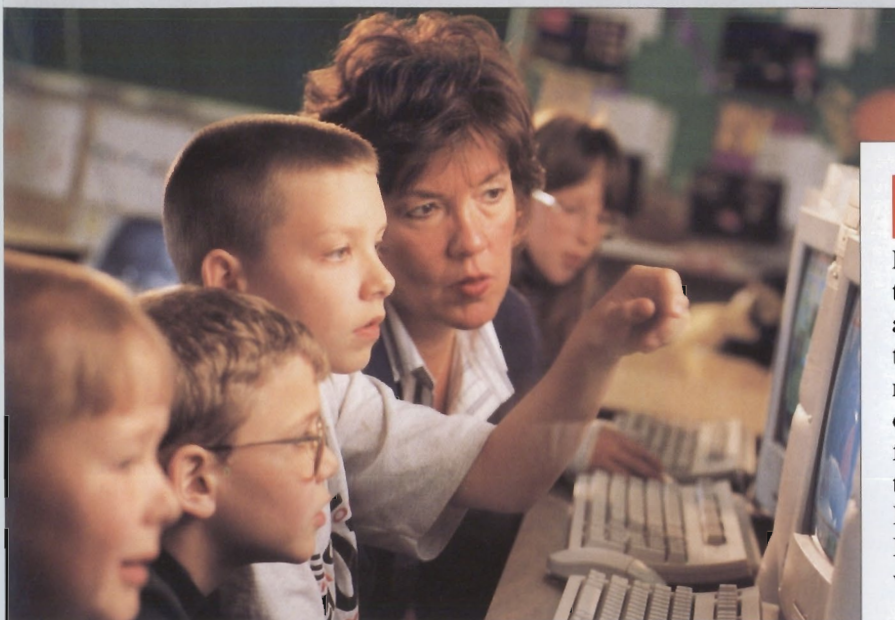
To train for the lengthy bike trip, Herman rides 200 miles a week. The hardest part, he jokes, is "raising the money for the ride."

Herman admits that "it hurts" sometimes after a two-day, 160-mile ride. But he keeps on going. This former triathlon competitor says, "I want to show people that there's life after an operation like this."

Thanks for the memories

PALO ALTO, California—Jeanne was a teenager when she began work on the assembly line in HP Labs in 1961. Ed was nearly as young when

he started on the same line a year later.

Jeanne and Ed Glenn, who married while at HP, bid the company a fond farewell when they both retired in March 1998. Together, they gave HP 73 years of service.

Jeanne and Ed each take with them more than 35 years of unforgettable HP moments, especially from the early years of their careers. "I remember we had a housemother, whose sole job was to take care of any problems we 'girls' had," says Jeanne, who was an HP Labs research process technician.

Ed's memories are of repairing Bill Hewlett's trusty old Garcia fishing rod and Dave Packard's eyeglasses, which they brought to him in the model shop.

Jeanne (center) and Ed Glenn (left) tell HP retiree Hermann Luechinger that they are ecstatic about retiring to Grass Valley, California. (Those are Jeanne and Ed in their original badge photos.)

Students at the Washington Court House Elementary School in Washington Court House, Ohio, prepare for the electronic world with equipment donated by HP.

Reading, writing and computers

Schools around the United States are getting a boost in technology with a little help from HP.

Since September 1997, HP has donated more than 2,000 out-of-use, yet valuable HP Pavilion PCs and HP DeskJet printers to the Detwiler Foundation's Computers for Schools Program. The program is a non-profit, grassroots effort in San Diego, California, aimed at putting computers in K-12 schools where there's a lack of technology for student use. Detwiler's program also includes testing and repairing the donated equipment.

U.S. Contributions Manager Nancy Thomas says HP's participation in the program was a pilot effort that could spur partnerships with other organizations like Detwiler. Also, the program creates a great channel for HP to distribute obsolete products.

"Our site has a continuous program where we send 200 HP DeskJet printers every month to the Detwiler Foundation," says Fernando Cabaccang in HP Roseville's Support Materials Organization, which donated the first batch of DeskJet printers.

For online information about the Detwiler Foundation's Computers for Schools Program, check out http://www.detwiler.org.

FORTUNE FOURTEEN

HP moved up two places to No.14 in *Fortune* magazine's latest ranking of the largest U.S. companies. HP's 1997 revenue of $42.9 billion also qualified for second place in the "Computers, Office Equipment" category. IBM led the category with $78.5 billion.

CHANGES AT VERIFONE

Hatim Tyabji, VeriFone president since 1986 and CEO of HP's subsidiary, has decided to retire from the company. Succeeding him as VeriFone's new president and CEO is **Robin Abrams**, previously the head of sales, marketing and operations for VeriFone's Americas Group.

Abrams reports to **Bill Russell**, HP vice president and G.M. of the Enterprise Systems Group.

CORPORATE CONTRIBUTIONS

During FY97, HP contributed about $61.4 million (U.S.) in cash and equipment to universities, schools and charitable organizations around the world. Of the total, about $48 million was in the form of new products; the balance was in cash.

About 76 percent of the total went to universities, teaching hospitals and primary/secondary schools.

VERSECURE APPROVAL

The U.S. government has granted HP approval to export the company's HP VerSecure encryption technology to five countries (United Kingdom, Germany, France, Denmark and Australia).

VerSecure is the computer industry's most comprehensive technology for controlling international data security and integrity.

ACM AWARD FOR LEMPEL

Abraham Lempel, director of HP Labs Israel, has received the 1998 Paris Kanellakis Theory and Practice Award from the Association for Computing Machinery. Lempel was chosen for the honor for his groundbreaking work in the field of data compression.

JASON JAO

IBM is fit to be tied

SAN JOSE, California—CEO Lew Platt participates in dozens of civic and fundraising activities throughout the year, but this event—which included a Klingon, Mr. Sulu, a lost necktie and an IBM coup—was a bit out of the ordinary.

In March, Lew received the 1998 Business Impact Award from the Asian Law Alliance (ALA), a 21-year-old organization that provides legal services, community education and community advocacy for low-income and limited English-speaking Asians and Pacific Islanders in the San Jose, California, area.

During the evening, (photo below), he met a Klingon—actually an actor who played the character from the futuristic TV show *Star Trek*—and the Enterprise's helmsman Mr. Sulu —actor George Takei, who was master of ceremonies for the event.

The highlight of the evening came when Lew donated his necktie as a fundraising auction item. After spirited bidding, a table of IBM employees (photo above) took the tie for $1,000.

The story has two happy endings: the IBM folks gave the tie back to Lew, and the ALA's fundraiser was a great success, thanks largely to the 14 HP-sponsored tables.

PLATT SETS Y2K DEADLINE

Lew Platt, HP chairman, president and CEO, has established a deadline to ensure that HP products comply with the company's stringent Year 2000 (Y2K) standards. As of June 1, 1998, no active products can be sold or shipped unless they are certified as Y2K compliant or do not perform date-related processing.

AMERICA'S CUP CHALLENGER

HP will be the official information technology sponsor for AmericaOne, the U.S. challenger for the 2000 America's Cup —international sailing's most prestigious competition. HP will support AmericaOne's design, sailing operations and business operations with a wide range of computing equipment, support, services and campaign funding.

CHINESE DISTRIBUTORS

HP and Fluke Corp. have named two distributors in China to sell HP basic instruments under Fluke's direction. They are: China National Electronic Components & Equipment Corp. and Beijing Oriental Integrated Machine & Electronic Equipment Co.

CONDIT JOINS HP BOARD

Philip Condit, chairman of the board and CEO of The Boeing Company, has been elected to HP's board of directors. **Paul Miller, Jr.** retired from the board in February after serving for 13 years.

NEW HATS

Lee Ting, HP vice president and managing director of Geographic Operations, also has become managing director of Americas Geographic Operations. He succeeds **George Cobbe**, who retired February 28.

Don Schmickrath has been named G.M. of the Product Processes Organization, replacing **Bill Kay**, who retired at the end of February.

Mike Rigodanzo is the new G.M. of the Software Services Division.

Brad Rubenstein has been named worldwide supply chain manager for the Medical Products Group.

RENÉ REYES

Full moon over Miami?

MIAMI, Florida—Before René Reyes, a logistics planner in HP's Latin America Region, could produce this moonlight shot of downtown Miami's skyline, a well-thought-out plan was essential.

René waited for a night with a full moon, then drove 40 miles from his home in Pembroke Pines to a predetermined location and perched himself on the Rickenbacker Bridge, which connects Miami with Key

Biscayne. Using a Canon EOS A2e camera with a 210mm lens, he aimed toward the full moon and pressed the shutter. René aimed again, in a different direction, with a 50mm lens and shot the Miami downtown skyline by leaving the shutter open for 30 seconds.

Amateur astronomers will realize that there is more to this photo, however, than a well-executed strategy. There's a bit of artistry as well.

"The moon is never located behind downtown Miami at this time of night,"

says René, an avid amateur photographer. "This is a double exposure, where I took two pictures in one frame by not advancing the film."
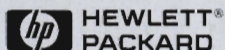
René adds that it's tricky to get proper exposure of the moon. The best way is to "fool" the camera to take the picture as if it were a bright, sunny day. To do this, he applied the "sunny 16 rule."

René explains, "The sunny 16 rule says that on a sunny day you can take your pictures using an aperture of $f16$; set the shutter

speed to the reciprocal of the speed of the film. So, if you have a film that is ASA 100, then you use $f16$ as the aperture of the lens and 1/125 as the camera's shutter speed, because there is no speed of 1/100."

René says that he has wanted to take a picture like this in full moonlight since moving from Palo Alto, California, to Miami in 1991.

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