

# MEASURE

For the people of Hewlett-Packard

November-December 1984

HP: Behind  
the scenes  
at the  
Summer Games



Editor:  
Brad Whitworth

Art director:  
Annette Yatovitz

Associate editors:  
Betty Gerard  
Joanne Engelhardt

Circulation:  
Kathleen Gogarty

## MEASURE

*Measure* is published six times a year for employees and associates of Hewlett-Packard Company. Produced by Corporate Public Relations, Internal Communication Department, Gordon Brown, manager. Address correspondence to *Measure*, Hewlett-Packard Company 20BR, PO Box 10301, Palo Alto, California, 94303-0890 USA. Report change of address to your local personnel department.

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### ON THE COVER

*U.S. cyclists brought home nine medals from the Summer Olympic Games in Los Angeles, California. Although HP's major Olympics involvement was testing for drug use by athletes, (see story on page 3) an HP-75C computer helped the U.S. cycling team win the track events. The computer tested a new aerodynamic frame used in five of the seven cycling events. Cover photo:*

© Michael Yada/LPI 1984.

# UPFRONT

## Atomic clock work earns Len Cutler 1984 IEEE award.

From a purely scientific point of view it would be hard to name any other kind of electronic instrument with such a clear and powerful impact around the universe as HP's frequency standard—otherwise known as "atomic clocks." *Measure* has had interesting things to report about them on a number of occasions.

Readers were first introduced to HP's cesium beam standard in July 1964. The magazine noted how two of the new HP products were flown from the U.S. Naval Observatory in Washington, D.C., to the Swiss Observatory in Neuchâtel to check on the time agreement between the two locations. The portability of the HP units, together with their extreme accuracy, made them ideal for such tasks of comparative calibration.

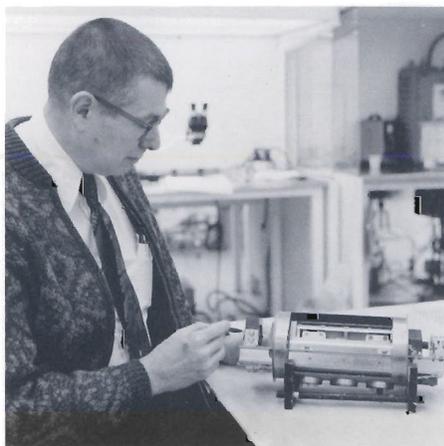
In June 1968 and February 1969 reports appeared detailing applications in various astronomy projects as well as NASA's Apollo 8 mission around the moon. Then, in March 1972 and April 1977 even more esoteric ventures were reported, both involving use of the standard aboard aircraft to test important portions of Albert Einstein's theory of relativity.

In virtually all of these activities, from product development to scientific experimentation, one name was consistently and prominently mentioned: Len Cutler. Last August the director of

HP Labs' Physical Sciences Lab was awarded the 1984 Morris Leeds Award from the Institute of Electrical and Electronic Engineers (IEEE) for his contributions to the development of advanced time standards. Len was on hand in Delft, The Netherlands, to receive the award during the International Conference on Precision Electromagnetic Measurements.

Precision indeed. The secret of the HP frequency standard is its ability to tune in on the special power of cesium atoms to resonate or oscillate in absolute sympathy with one exact radio frequency. That beat or rhythm occurs precisely 9,192,631,770 times each and every second.

So stable is this beat that it has been accepted as an international time standard since 1967 when it replaced the former celestial method of time measurement. If you feel inclined to test that stability, come back in 30,000 years. It has been estimated that the atomic timekeeper may lose all of one second between now and then. **M**



The heart of an HP cesium beam standard—"atomic clock"—was explained by physicist Len Cutler of HP Labs in 1977 photo.

CHUCK FOX



Standing-room-only crowds watched Olympic events, like this preliminary soccer match held at Stanford University's stadium in Palo Alto.

JAMES YEE

## Backstage at the Olympics

After a while it seemed almost ludicrous. You saw ads for the official airline of the 1984 Olympics, the official chicken of the Olympics, the official jeans of the Olympics, even the official candy-coated chocolate of the Olympics.

Small wonder, then, that Hewlett-Packard took a typically low-key approach to its Olympics involvement, significant though it was.

A number of HP people and two families of HP products were heavily involved in the international athletic competition which climaxed last July in Los Angeles.

HP's Dahlia Riley and Doug Biro spent a good chunk of the last two years working with the University of California at Los Angeles (UCLA) Clinical Pharmacology Lab which performed all drug tests for the Olympic Games. Dahlia, a field sales engineer for analytical equipment, was the primary contact



© MICHAEL WADLER 1984

Pam Bileck, daughter of HP's Judy Bileck, competed on the U.S. gymnastics team.



JOANNE ENGELHARDT

**This team worked at the Olympics drug-testing lab to keep HP equipment running: Jerry Wing, Doug Biro, Jim Merdink and Kaz Latven.**

between the lab's director, Dr. Donald Catlin, and HP. Early in 1982 the lab purchased three of HP's gas chromatograph-mass spectrometer systems (GC/MS) as well as several gas chromatographs to detect banned drug substances in the urine of Olympic athletes. Because of the large number of tests that had to be made during the 16 days of the Games, HP loaned five more GC/MS systems and six GCs to the lab.

"It was a monumental task," recalls a weary Dr. Catlin. Upwards of 1,900 samples were tested for anabolic steroids. Added to that were the samples that had to be retested if the first test results were positive.

"We were under considerable pressure to get our results back quickly," says Dr. Catlin. "Our normal rate was to do about 100 samples a day, but there were times when we did 150 or more in a 24-hour period."

How the lab technicians managed to run so many tests in a day is due, in part, to the reliability of HP's equipment. But the reliability of HP's sales support people was an even more important factor.

Doug was part of a three-person HP team that worked around-the-clock during the Summer Olympic Games to make sure the sensitive equipment was up-and-running at all times.

During the Olympics, Doug and two other support engineers, Jerry Wing of the Englewood (Colorado) office and Hal Shira of the Valley Forge (Pennsylvania)

office, stayed in dorms on the UCLA campus.

"One of us was always at the lab, and the other two were on call if the equipment went down. There was a lot of pressure on us, but everything went pretty smoothly.

"As the days went by, we lost track of time and rarely knew what day it was. Sometimes I'd start working at 3:30 a.m. and not get back to the dorm until midnight," says Doug.

By the time the athletes returned to their homelands, Dr. Catlin had good words for Doug, Jerry and Hal.

"What really made the difference for us were the HP support people who were here around the clock. They kept the instruments going more than 90 percent of the time. Without them here, we never could have done the volume of tests we did."

Another vital link in the HP support chain was Kaz Latven, a customer applications engineer at the Neely Santa Clara sales office. Kaz provided the software expertise at the UCLA lab while the service team kept the hardware running smoothly.

It turns out there were very few cases of athletes using illegal drugs. "We always took two samples from each athlete. If the first one was positive, we'd run it again," explains Dr. Catlin. "If it came out positive a second time, we submitted our findings to the Olympics medical commission. Then we'd open the second sample in front of representatives of the team and athlete."

After all test verifications were complete, about a dozen athletes were found to have used banned substances.

Now that the 1984 Olympics are history, the GC/MS equipment HP loaned to the lab has been dismantled. Dr. Catlin intends to use the equipment UCLA purchased for sports medicine and clinical pharmacology.

"There's so much more to learn about toxins in people and how to interpret the data we get from drug measurement tests," he says.

HP has supplied GC/MS equipment for Olympic Games competitions since 1972. Dr. Catlin says he chose HP because "it has first-rate analytical equipment. I don't feel anyone makes better equipment."

Some of HP's medical equipment also has been used during previous Olympic competitions. Last February, for example, an HP electrocardiograph (EKG) medical system and modem were used to send coronary records to a hospital for analysis.

ABC-TV, which televised the Winter Olympics from Sarajevo, Yugoslavia, gave all of its 1,000-plus television crew members EKG tests to determine if any of them was under too much stress.

Individual HP people—including four HP Olympic relay torch runners (see box, page 5)—played a part in the Summer Games. Barbara Zimmer, a systems analyst at Stanford Park Division, qualified for a spot at the U.S. women's Olympics marathon trials. Though she didn't make the final three-



JOANNE ENGELHARDT

HP's Dahlia Riley discusses UCLA iab equipment needs with Dr. Donald Catlin.

woman team, Barbara says she was proud "to be a part of history."

Judy Bileck's 15-year-old daughter, Pam, had been training for a place on the U.S. Olympics gymnastics team for several years (see March/April 1983 issue of *Measure*). Pam earned the number four spot on the U.S. women's team, won a silver medal for team competition in Los Angeles. "I was proud to be a part of it," she says. So was Judy, a personnel administrator in the Neely Santa Clara sales office. "It was incredible," she says.

Around the world in Sweden, a young HP systems engineer, Lena Moeller, also was training hard to represent her country at the Olympics. Considered the fastest sprinter in Sweden, Lena trained hard for the Games, then suffered a leg injury and could not compete.

Professor Chester Kyle of California State University at Long Beach used an HP-75C computer to develop and test a new bicycle design used by the U.S. cycling team in five Olympic events. "The HP computer was a definite plus because it's battery-operated and portable. We took it with us when we field-tested the bicycles and tires for friction," he says.

With all this Olympics involvement, HP could lay claim to being the official "jack-of-all-trades" of the 1984 Olympics. But then, that's not the company's style. As far as the Olympic Games are concerned, HP equipment—and HP people—speak for themselves. **M**



JOANNE ENGELHARDT

HP's Marj Moore carries the Olympic torch through San Jose, California.

## STILL CARRYING A TORCH

To Marj Moore, the 1984 Olympics has almost become a way of life. It all started in October 1983 when she got an invitation from the local Boys Clubs to participate in the Olympic Torch Relay in California.

"My initial reaction was, 'Wow, I'd love to do it,'" says Marj, a systems administrator in HP's corporate materials management department.

There was one small hitch: Running one kilometer with the Olympic torch required a \$3,000 donation to the Boys Clubs.

Marj's HP co-workers kept coaxing her to sign up, and many gave her small contributions. But four days before the deadline, she had collected only half the amount she needed to participate. A last-minute publicity campaign within HP helped Marj reach her goal.

"I was on such a high," she recalls, "almost as much as when I actually carried the torch."

Marj found herself at a busy San Jose, California, intersection on July 17, wearing an official Olympics relay uniform and waiting for the torch. Later that same day, Cheryl Orr, a Corporate accounting supervisor, also ran a leg of the relay near Salinas, 88 kilometers (55 miles) south of San Jose.

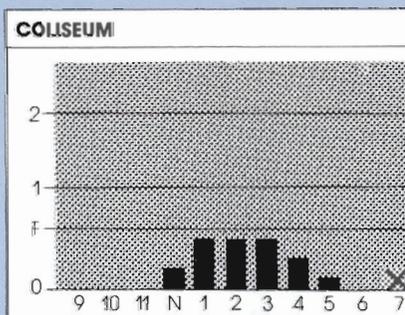
At least two other HP employees carried the torch. Scott Walecka, a project manager at Information Networks Division, and his wife, Martha Seaver, a software support engineer at the Personal Software Division, joined five other members of Martha's family to carry the torch in succession.

"We were so excited," says Martha. "My dad, my three brothers and my sister all agree that the run was the thrill of a lifetime."

They joined more than 10,000 people who took the Olympic torch from New York to Los Angeles—19,000 kilometers (almost 12,000 miles) in all—through all 50 U.S. states.

Marj didn't stop after her torch run. She went to the Olympics in L.A. as a marshal for both the men's and women's marathons—and she watched several other athletic events as well.

Now, she gets invitations to torch runner reunions and festivities. "Like the torch flame itself," she says, "I guess this Olympic camaraderie will never die out."



**F** = Federal clean air standard  
**1** = 1st stage; air unhealthy  
**2** = 2nd stage; air hazardous  
**X** = No data available

## ANY SMOG TODAY?

To tell its readers (especially Olympics visitors) about the daily smog level during the Olympic Games, the *Los Angeles Times* printed a series of charts each morning. The graphs were drawn on an HP 7475 plotter, which, along with an HP 150 computer, was loaned to the newspaper during the Summer Games.

Reaction to the charts was "fantastic," says Richard O'Reilly, technical resources coordinator. "We've entered a new era in news graphics at the *Times*."



# RAISE HIGH THE FLAGS

As part of the Northern European Region, HP Netherlands and HP Belgium maintain their own individuality but gain the advantages of greater mass.

When a building goes up in The Netherlands, it's an old tradition to give the workers a crate of beer after they reach the highest point. When they receive the tip, the Dutch flag is hoisted on high—if not, an old tree branch may go up instead.

This October 12 it was time for Jan Schapers, general manager of Hewlett-Packard Nederland B.V., to hand over 25 guilders—in lieu of beer—in a highest-point ceremony for the Dutch sales company's new headquarters building in the Amstelveen section of Amsterdam.

The Dutch flag waving atop the 12,000-square-meter building (130,000 square feet) signalled more than a construction job well done. HP has been selling in The Netherlands since 1961, but the past five years specifically have seen a steady rise in orders. Against a backdrop of 19 per-



GER. CH. NIJSTRA & ZN B.V.

**Jan Schapers (left) donned special garb for highest-point ceremony of HP Netherlands' new building. At right, representing the contractor, is W. Hakse.**

cent unemployment—the highest in Europe—HP Netherlands has posted the top dollar sales of the six Benelux and Nordic countries that make up HP's Northern European Region (NER).

The region was formed in 1980 with headquarters in Amstelveen when HP's

European headquarters in Geneva, Switzerland, began to decentralize management responsibilities to the field. NER is one of two multicountry regions (the other is widely spread Southeast Europe).

The region staff is highly professional, deliberately international rather than solely Dutch, and just as deliberately kept lean—NER General Manager André Breukels expects moderate growth in staffing. Region headquarters is housed in utilitarian fashion on three floors of an office building in Amstelveen.

To understand how the region interacts with its various countries, let's swing by the facilities of NER and HP Netherlands in Amstelveen and then pay a visit to neighboring HP Belgium. Together, the two countries account for some 47 percent of HP's business in the Northern European Region. Each retains its own style while operating within a region framework that provides greater clout within HP.

## THE MULTICOUNTRY REGION

The Amsterdam suburb of Amstelveen serves as the hub of the six major coun-



tries that make up the Northern European Region.

At the south are Belgium and The Netherlands (with the tiny Grand Duchy of Luxembourg, they make up the Benelux countries). To the north are the four Nordic countries of Sweden, Finland, Norway and Denmark. (The region also serves Iceland.)

The region takes the six independent major country operations—differing in size, style, economy, language and pricing—and provides common sales quotas and targets that accommodate dips and rises in the fortunes of individual countries. Services such as treasury and legal that were once located in distant Geneva are now closer at hand in Holland.

Explains André Breukels, "You can shift targets and resources within the region. It gives us tremendous flexibility—we can make investments in one country, or tolerate swings in the economy of individual nations." Differences among countries in the cost of doing business per order dollar can be smoothed out overall.

Does it pay off? "We have always been able to maximize our performance," Andre says. "You can't collapse totally in six countries." His smile doesn't indicate concern about universal collapse—economic indicators are healthy (except for unemployment) across the board. Each country has its own high-flying markets such as oil, medical, telecommunications, and the automotive and paper industries. (NER's electronic industry is the smallest in Europe, however.)

The region strategy is to let the countries run their own organizations, stimulating and motivating them rather than insisting on control. "We want to provide leadership for the changing role of the country subsidiary," André explains. That fits with HP's overall direction of encouraging local management to take a lead in making decisions on strategic and marketing matters.

Special attention has been given in NER to training new field engineers in its own workshops. The region has made an interesting addition: two senior managers from major-customer companies are brought in to give the



Amsterdam is headquarters for HP's Northern European Region. All distance in air miles.

neophytes a candid assessment of how it really is to do business with HP.

Geoff Bonham, who heads the Customer Engineering organization in the region, was formerly the HP country manager in Iran. "I know what it's like to be on the end of the line when you're a small country. You feel very exposed," he says.

He finds a lot of camaraderie and willingness to help out among the independent NER countries, although moving shared equipment across boundaries can be an expensive proposition. Within the sprawling region, air fare can be costly—from Amsterdam, a ticket to Helsinki, Finland, is \$13 more than a trip to Los Angeles.

"When a country really runs out of resources and their voice isn't getting through, I can speak to Geneva, Grenoble, Böblingen or the U.S. on their behalf," says Geoff. "That's the advantage of the regional office—I'm representing a sixth of Europe when talking to the rest of HP."

## A GATEWAY TO EUROPE

If HP's European headquarters were not in Geneva, it would probably be in Amsterdam.

The Netherlands is the gateway to Europe by sea, land and air, with direct flights from Amsterdam's Schiphol Airport to Scandinavia and key points in the U.K. and West Germany. The Dutch government is cordial to foreign-based companies, taxes are low and land is cheap. Postal costs are so attractive that printing and mailing of HP material to customers in all countries outside the U.S. is centralized in Amsterdam.

And for a U.S.-based company which sends many monolingual travelers abroad, it's comforting that Dutch schools teach all students English as a second language.

"The American style of working is natural for the Dutch because everyone here has a little of the entrepreneur—the Dutch have spread out worldwide and are flexible and adaptable," says communications manager Wil Duyts.

The compactness of the country (as the Dutch say, "35 walking hours wide and 85 walking hours long"), its dense development and excellent network of roads all make it possible to deploy a sales and service force efficiently within Holland.

The Dutch subsidiary employs about 500 people, the largest number among



At the Leuven University Hospitals in Belgium, results of more than four million analyses in the central clinic lab are transmitted annually via a network of HP 1000 computers.

## SHOWCASE FOR HP MEDICAL PRODUCTS

There's no miracle about HP's deep medical penetration in the Benelux countries, says Karel Uyttendaele, the European major accounts manager for medical products.

"Success is due to the continuity of strong medical account management and the long-term relationships that have been built," he says. Willy Walraevens now directs medical sales in Belgium. Jan V.D. Berg in The Netherlands.

In The Netherlands, for example, HP has more than a 90 percent market share in fetal monitoring systems and 70 percent of the hospital patient monitoring systems. Belgium has an impressive concentration of 15 dedicated HP medical computer systems. Since 1970, patient-monitoring equipment for 2,200 hospital beds has been sold there.

In the 1970s, as hospitals were starting to build their coronary care facilities, HP Netherlands' Joop Baart established cordial relationships with a number of leading cardiologists. "I found that doctors and professors were happy to explain what was going on if I wasn't afraid to ask," he says. Their thinking was shared with HP's product divisions. (Baart has just moved from NER Medical sales manager to general sales manager for The Netherlands.)

Today most of the eight university hospitals in Holland have installed HP medical systems. An order for nearly \$2 million was just signed with the Academical Medical Center in Amsterdam.

Great effort has also gone into stimulating the introduction of computers into hospitals in Belgium. Since 1973, the five hospitals which are part of The Catholic University of Leuven have been developing a network of HP 1000s hooked to two mainframes for processing a mass of patient and research information with model efficiency. HP-sponsored seminars and congresses have helped convince all the large teaching hospitals in the country to install medical systems.

HP's early success with sales to university hospitals has had spinoff benefits: Medical students trained on HP equipment want the same thing as they go elsewhere. HP stays in touch as their careers develop.

As part of an NER thrust, the powerful medical sales teams in Belgium and Holland are now talking to individual doctors and to smaller health-care centers about applications for personal computers in the office. The future possibility for networking with the hospital computer systems now in place is exciting.



the six NER countries. (Belgium is the second largest country operation with more than 350 people, just ahead of Sweden.) District sales offices have been established in Eindhoven to serve Philips, a major customer, and in the high-density area of Capelle/Rotterdam, which has a large installed base of HP equipment. A service center is located in Meppel.

The Dutch customer, it should be noted, is not an easy buyer. "The Dutch are very careful," says Tom Van Der Staay, instruments manager. "Companies like to clear their balance sheets before hiring people." Holland has a lot of R&D but little factory production. As might be expected in a transportation hub, companies involved in distribution activities are an important market for HP products along with oil, pharmaceutical and chemical customers.

Showing its own entrepreneurial flair, HP Netherlands in 1983 successfully piloted in Eindhoven a combined instrument/computer district to serve a major account—more than seven months before the company decided this July to blur the line between instrument (01) and computer (02) sales forces.

The focus of this concentrated attention is Philips, the Dutch electronics giant that invented the compact audio tape cassette in the late 1960s. Philips is a dominant presence in Eindhoven, with its name on just about every structure in town. These days when you sit in the Philips Soccer Stadium you'll see a big Hewlett-Packard sign on the top of the building across town where HP has its local office.

To serve this multimillion-dollar, multinational customer in an organized fashion, two complementary managerial slots have been created in Eindhoven:

Jurko Krol, formerly 02 manager for HP Netherlands, became international major-account manager for Philips—taking a broad look at its worldwide activities and the direction in which it is headed, and supplying that information to the HP sales force. He negotiates HP's annual worldwide contract with Philips. Sales are under Eindhoven district manager Frans Cox, an experienced 01 district manager who now



Flower sellers and a rich fresco of gabled buildings decorate the banks of Amsterdam's canals.

has both 01 and 02 field engineers reporting to him along with technical and admin backup.

While it's too early to make a final call on the success of the Eindhoven model, it could well set a trend within HP.

Among the people taking a serious look at the strategic aspect of HP's organization is HP Netherlands' Works Council: 11 employees representing all offices, sales and admin. Mandated by the Government's Ministry of Social Affairs, the Works Council must be informed about changes in the organization and management team. It has the right to give advice on a wide range of matters.

District Manager Yvonne Schade is currently serving a three-year term on the Works Council. "HP's change from a product-oriented company to one that's marketing-oriented will have major consequences for the organization and the people working in it," she says. "We'd like to comment on this, asking management, 'Did you look at it this way?' in order to offer our point of view."

In the opinion of HP Netherlands' country manager Jan Schapers, that's a healthy sounding board to have.

## TWO-LANGUAGE BUSINESS

Wedge between Holland, France and Germany, Belgium has developed a complex national character of its own. It has three clearly defined areas within its compact boundaries, with fierce loyalty to the local language in the north (where Flemish is spoken) and in the French-speaking south. Add to that the mixture of languages in the great international center of Brussels and a strip of German-speaking populace along the eastern border.

Emile Van Reepinghen, country manager of HP Belgium, has diplomatically chosen to have one location in neutral Brussels. Since the Flemish and Walloon sectors are at odds with each other, any branch offices would have to be established in parallel for political reasons. Covering the entire country from Brussels is quite practical, given a superb system of roads. Customer engineers starting out from home in the morning check with a central phone-in support center in Brussels for the day's assignments.

Every effort is made to assign those making field calls to their home sector. Still, a Belgian engineer needs to



Pausing in the cheerful cafeteria of the Eindhoven office, Frans Cox (left) and Jurko Krol confer about the Philips major account.



know the two national languages and English.

It also means that everything such as keyboards, applications packages, quotations and service contracts must be prepared in a Belgian customer's language of choice.

These cultural considerations haven't slowed down HP Belgium a bit. Sales have been growing at 30 percent a year (in local currency). The sales company, Hewlett-Packard Belgium S.A./N.V. was established in 1961. It owns its energy-efficient building on a slope overlooking hospital grounds, and will add an adjacent building next year.

The impact of the escalating U.S. dollar is a real concern, however. "It's no problem when the dollar decreases," Emile points out. "But it's quite a problem when the dollar goes sky high." Prices increased by 60 percent in two years for Belgian customers. Fortunately, HP Belgium can negotiate with governmental price control authorities for some relief.

Since Brussels is the headquarters for the European Economic Community (EEC) and NATO, it is a popular location for the European headquar-

ters of many multinational companies including ITT, Monsanto, Westinghouse, Procter and Gamble, 3M, Exxon and Levi Strauss.

Brussels is also the third largest financial center in Europe (after London and Geneva). Sales of commercial systems are strong in Belgium and Luxembourg, which has a concentration of 110 banks. HP Belgium has an installed base of 200 HP 3000s.

The Belgian instruments business has flourished through some special efforts. Under manager Fernand Ducheyne (recently named general sales manager), a pioneering instruments systems engineering operation was set up to tailor-make systems locally. "You have to lift every stone to see if a dollar is below," Fernand says.

One impressive payoff has been cultivation of ITT Belgium, which now has one of the largest—if not the largest—installations of HP 64000 microprocessor-development systems in the world. The Belgian instrument team arranged for ITT to get the world's first HP 8086 emulator prior to introduction to perfect its System 12, a digital telephone switching system for use in

huge communications networks. Now an HP 8086 is incorporated into each node of a System 12, along with an HP 64000 for development and debugging.

Three Belgian sales forces—analytical, computers and instruments—worked together on a sale involving a complete solution for monitoring a natural gas distribution system that supplies the entire nation. Small cabins are installed in the field to take samples from the gas line each 20 feet for analysis and dispatch to computer centers in Brussels.

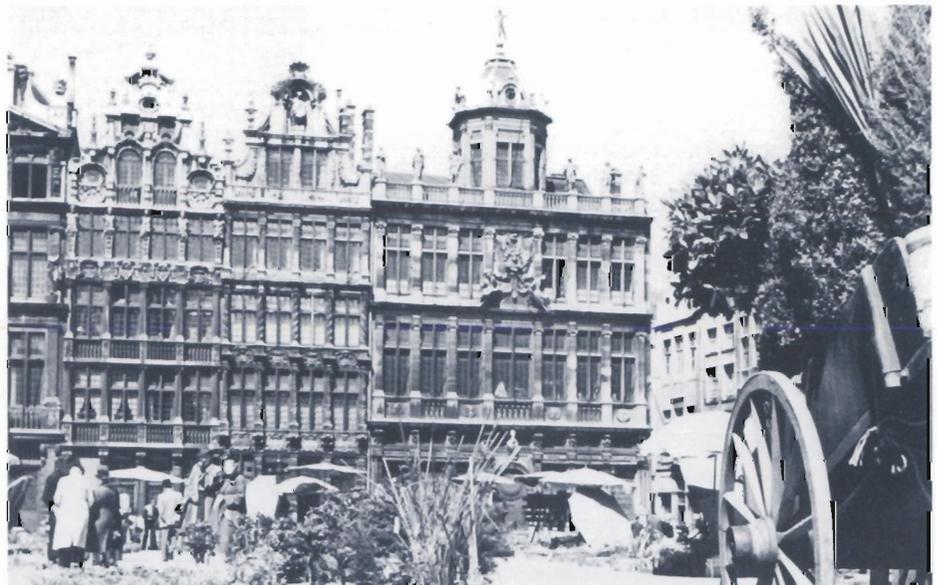
Analytical sales manager Marc Petit has a theory about the emotional element in selling. Dealing with Belgian customers is different from what he sees as more "cut and dried" sales to Dutch customers.

"Belgians are more Latin," Marc declares. "They like to see creativity—they really don't like solutions similar to those for someone else. Product introductions are successful here because people react well to what is new and different.

"The difference is that people in Holland are organized—while the people in Belgium are independent artists." **M**



When HP Belgium's country manager Emile Van Reepinghen received a 20-year service award, his photo became a backdrop for the talent show. Dancer is Jacqueline Charlier.



Guild houses from the 17th century in the Grand Place of Brussels' old town are a reminder of the city's long commercial history. The area is dramatically illuminated at night.

BELGIAN NATIONAL TOURIST OFFICE

When you're cooking up a way to let employees share in a company's success, the recipe is simple: Give each person

# A PIECE OF THE PROFIT



**T**he public address system crackles to life. Hundreds of HP sales offices and plants around the world grow unusually silent. People freeze in their tracks to listen. In a three-minute talk, HP's president explains the operating results for the previous six months and announces the cash profit-sharing percentage.

This scene is repeated twice each year (in November and May) to let employees know just how HP is doing financially and how that will directly affect their pocketbooks. It's been a regular event since 1962 when the company's current cash profit-sharing program went into effect. (The plan distributes 12 percent of pre-tax profits to employees who have been with the company for more than six months. The distribution is based on the employee's earnings over the previous six months.)

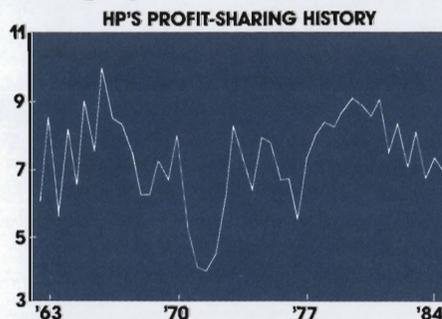
While some extra cash (roughly equal to a total of one month's pay per year on average) is always welcome just before the Christmas and Memorial Day holidays, the benefit carries a great deal more significance. It helps satisfy the corporate objective that says HP employees should share in the company's success which they make possible.

The current cash profit-sharing program traces its roots back to the earliest days of the company. At the end of 1940, Dave Packard and Bill Hewlett

managed to scrape up enough cash—a rare commodity in those first years—to put a crisp five-dollar bill in an envelope for each employee. They handed out those first bonuses at a company Christmas party.

Soon afterwards each paycheck included a bonus—a production bonus similar to one developed by the General Radio Company in Cambridge, Massachusetts.

General Radio put together its plan in response to pay and layoff problems created by the Great Depression. The production bonus recognized that employees as a group should receive the dollars saved when labor costs dropped. If more products were made for the same labor dollar, the bonus would go up.



Over the past 24 years HP's cash profit-sharing program has paid employees an average of 7.30 percent of their pay each year.

The bonus plan grew like a weed during its 21 years at HP. At the start, the bonus was pegged at 20 percent of base earnings. By June 1948 it had exploded to 80 percent. At that point base wages were increased 50 percent and the bonus taken back down to its 20 percent level. Similar adjustments took place in 1953 and 1959.

Dave Packard announced the end of that first production bonus program in a letter to all HP employees in the U.S. in December 1961. The change also modified the Christmas bonus that had become almost a personal year-end gift from Bill and Dave. "Our production bonus worked very well when we were smaller. Although it has been modified from time to time as we have grown, the formula we use in computing this bonus has not worked well . . . and as our activities become more complex, it is even less likely the present bonus plan will work well in the future.

"We have also had a Christmas bonus for many years. Next year we plan to substitute for the Christmas bonus a cash profit-sharing program. This will provide an incentive payment related more closely to the contribution you make—not just in more efficient work, but also in helping to save material costs, overhead costs and in every other contribution toward increased profit."

Since then hundreds of companies have adopted similar profit-sharing plans—many of them originally attracted by HP's success. And thousands of HP employees will swear that there's almost nothing sweeter than a profit-sharing check. **M**

PHOTO BY MARGARETE LYONS

# CLOSEUP

Zooms in on the ever-changing world of HP people, products and places.



HP PHOTO

## IT'S A JUNGLE OUT THERE

When Stephen Eyre, a doctoral student in anthropology at the University of California at San Diego, travels to the interior of the island of New Guinea, he won't be alone.

The Portable, HP's lightweight, battery-operated computer, will help him as he studies supernatural beliefs and sorcery practices. The

portable computer and its companion ThinkJet printer will organize, store and print large amounts of sociological, linguistic and textual data.

The computer weighs less than nine pounds and features built-in software. Even box-office anthropologist Indiana Jones could have used such a machine while looking for the Ark of the Covenant.

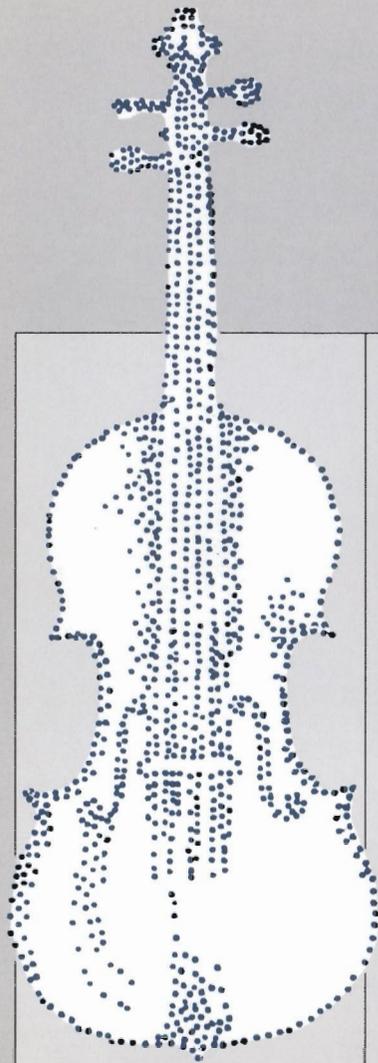


LIZ WAWADA

## WHERE THERE'S SMOKE...

... there's fire each fall at HP's Spokane Division. Fields of grass (Kentucky bluegrass, Bermuda grass, etc.) are burned to increase the size of the following year's grass seed harvest, to control pests and to kill fungi.

The HP division is located in the center of the state of Washington's commercial grass seed growing area, one of the largest in the world. To cope with its smokey neighbors, HP facilities people close air intakes to the ventilation system. "It may smell slightly smokey in here from doors being opened and closed," says Dan Shepard, a facilities supervisor, "but the temperature stays at a comfortable level."



### SUITE SOUNDS

Antonio Stradivari had a few secrets about making violins, but the 17th-century craftsman didn't tell many others. But with the help of an HP plotter, scientists are unlocking some of the secrets that give a Stradivarius its pure tone, musical power and physical beauty (and let it sell for upwards of \$1 million).

At a sound lab in New York, a computer-controlled machine taps the violin's bridge, measures rebound and sound, then sends the results to a plotter.

But even if science uncovers all the secrets of the Strad, there will still be the bow to worry about.



CASEY BARNETT

from one side to the other to position the tool drawer conveniently. And the molded tool holder lifts out so it can be reversed to have the correct angle for a left-handed reach, as shown here by Bernie Edge of sources assembly and wire.

LSID industrial engineer Casey Barnett talked a long time with production people before designing the division's new coordinated line of ergonomic furniture. The workstation also has a footrest that won't interfere with leg room for most tall people, an overhead suspension for air-driving equipment, and a carpeted work surface that carries away static electricity.

When left-handed and right-handed people use the same workstation on different shifts, set up is now a simple matter. The system has been in use since January and won praise from all hands (especially the left-handed, of course).



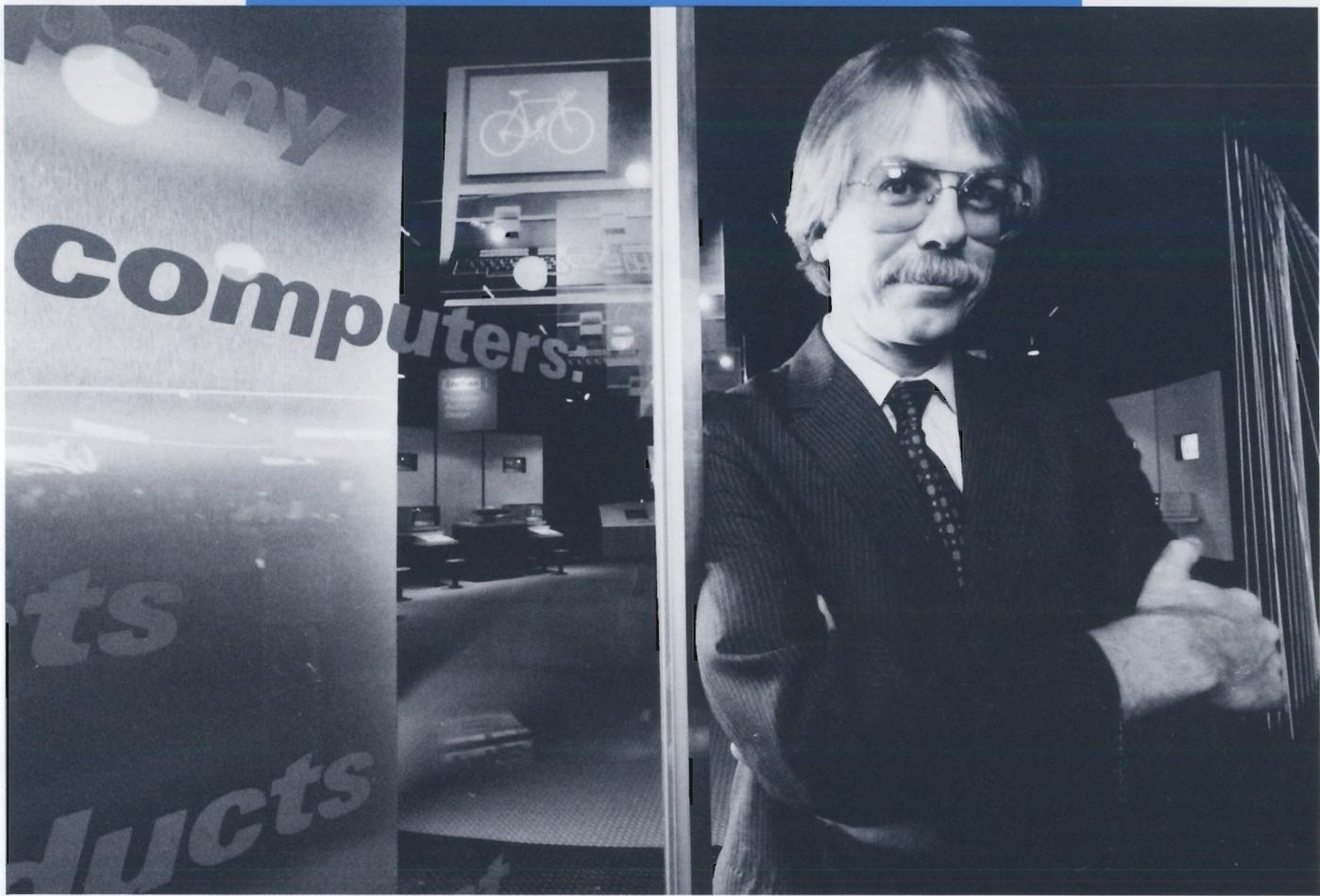
### PUZZLE WINNERS

The winners of our *Measure* crossword puzzle contest are:

Tom Baker, Atlanta Sales; Michael Stern, Optoelectronics Division; Phil Cho, Calgary Sales; Louis Cormier, Moncton Sales; Lucy Burris, Spokane Division; Susan Baker, Fort Collins Division; Mark Carangi, New Jersey Division; Luis Suarez, McAllen Sales; Hou Chu, Andover Division; Dick Dolan, Corporate.

### ON THE OTHER HAND

Left-handed folks sometimes feel... left out. Not so at the Lake Stevens Instrument Division, which has made some special provisions for them in designing new workstations. The storage cabinet scoots easily



Museum director Dr. J. Rounds stands at the entrance to HP's computer exhibit where visitors are encouraged to design a bicycle.

Museum—the word conjures up visions of musty books and stuffed boars' heads. If that's what you remember about museums, take another look. At the California Museum of Science and Industry, visitors are invited to

# COME TOUCH TOMORROW

Imagine spending a few months away from your regular HP duties designing and building a museum exhibit. That's what happened to three Neely Sales Region people who were asked to show HP's vision of the factory of the future to the people who visit the newly remodeled California Museum of Science and Industry in Los Angeles.

"This project had only one option: success," reflects Lionell Griffith, the Neely application engineer who created the software for a computer-aided management game that is part of HP's "The Bicycle Company" exhibit.

Systems engineer Bob Lawton, who describes himself as an "HP fanatic all my life," echos Lionell's words. "We were asked to do the 'impossible,' and we did."

How did HP get involved in putting together a flashy, animated exhibit at the Los Angeles museum located just a long jump away from the major 1984 Olympics site, the L.A. Coliseum? How did it happen that the company put the exhibit together in just six months, opening days before the Olympics?

The foresight of Neely Sales Region General Manager Phil Scalzo had

something to do with it. Phil was approached by Dr. J. (that's his first name) Rounds of the museum to see whether HP would be willing to give the museum an equipment donation.

"It turns out we did that—and a lot more," smiles Phil. "Everyone from the Executive Committee on down got really excited about the project and eagerly approved it."

HP made a company equipment grant, a cash grant of \$394,500 and backed that up with three people to work on the hardware and software design for the project. Nick Copping,

then a Neely region systems specialist (now working on a customer quality project for HP Labs) took the lead on the museum project. He, in turn, selected Lionell and Bob because he knew their work and their specific strengths.

Both Nick and J. agreed that HP's exhibit had to overcome the average person's fear of computers. "We wanted to communicate what computers look and feel like without using acres of HP equipment," says Nick.

An entire wing of the museum is devoted to similar high-tech displays to help people gain some "positive experiences with computers," explains J. Such companies as Tandem, Apple and IBM all have exhibits there.

In the beginning, Nick and J. considered focusing the HP exhibit on printed circuit boards but decided that idea was too limiting. A second thought was to build the infamous wig, but Nick and J. still were not satisfied.

"We considered showing how automobiles are built, but since we're sandwiched between a McDonald's food exhibit and General Motors, that idea was rejected, too," says Nick.

They settled on a bicycle factory because two-wheelers are familiar to nearly everyone and because "it would nicely combine the museum's goal of education with HP's corporate objective of good citizenship," adds Nick.

The exhibit is a showplace for some of HP's most glamorous products—four HP 150 Touchscreen personal computers, for example, are part of the "managing the bicycle company" game.

"The management decisions you make determine whether or not the company will end up in the black," explains Lionell. "Color video monitors show what happens as a result of your decisions, and it gives you an idea of how it would feel to manage a one-person company.

"Kids get a bang out of it and so do adults. I've found that just about anyone between six and 60 is able to understand it."

Nine HP 9920 computers are used for the game because, according to Lionell, "they don't break. I'd guess that the average mean time between failures is about 10 years." Adds Bob, "My own experience is that the 9920 is the most

TEST ENGINEER : R. LAWTON	TEST SEQUENCE : <84.G.3E>	FRAME : REYNOLDS 531 DB
FRAME SIZE : 22.8 IN	TIRE SIZE : 27 X 1.25	NOTES :
WHEELBASE : 41.8 IN	CRANKSET : TA CYT 52	1. BROOKS LEATHER SADDLE
CHAINSTAY : 17.5 IN	BRAKES : DIA COMPE	2. TOE CLIPS AND STRAPS
FORK RAKE : 1.9 IN	FREEHHEEL : MAILL 700	3. PADDED HANDLEBARS
HEAD ANGLE : 73.8 IN	13-16-18-21-23-28	4. QR TO N. COPPING



Young museum visitors discover the fun of designing their own bicycles at an HP graphics tablet. After choosing the color, handlebars and seat, they get a printout (above).

LOIS GERVAIS



JOANNE ENGELHARDT

**HP's Nick Copping (center) shows museum administrator Dr. J. Rounds (left) and Chuck Maisel of Landor Associates how an HP 150 computer controls an imaginary bicycle company.**

“durable, reliable computer HP makes.”

Another part of the exhibit features the new HP 7550 eight-pen graphics plotter. (In fact, the first ones in the exhibit were prototypes because none had come off the production line at the time.) Here, visitors design their own bicycles: They select the type of handlebars and seat, the color of paint for the frame, etc. Then they can watch the bike take shape on the HP plotter, and they get a paper copy of the bicycle to take home.

“Ordinarily the museum prefers not to offer handouts because most people take them and later toss them somewhere,” says Nick. “We were amazed at how insistent people were that they get a copy of the plotter-produced bike. There weren’t many left around the museum at the end of the day.

“I could have sold them for a quarter apiece and still run out,” he says.

The third portion of the exhibit is also the most visual. The design firm of Landor Associates created a 16-foot-wide, 40-inch-high screen to display state-of-the-art computer animation.

Visitors watch little C3P0-type robots assembling a bicycle. At the far end of

the screen, the bicycle is in one piece, boxed and ready to be shipped. By this time another bike of a different color is starting along the assembly line.

“The action in this display really stops people,” says Nick. Adds J., “It’s visually intriguing. Kids, especially, love to watch the friendly robots build the bicycles one at a time.”

One recent museum visitor who was fascinated by HP’s computer games was Prince Albert of Monaco, according to J. “I took him through the museum. He made a bicycle on the plotter and became a big HP fan.”

Completing the entire exhibit on time was a challenge for the HP team.

“This project was an example of teamwork between all the divisions that provided the equipment we needed in short order,” says Nick. “It also demonstrated that HP people are always willing to give a little extra.”

Kay Kinsala, a 19-year HP employee who retired earlier this year, is an example. She coordinated delivery of the hardware for the project. “So many people at the divisions went out of their way to get the equipment here in time for the opening of the exhibit— with-

out sacrificing customer orders,” credits Dwayne Neely, southern zone manager in Neely Sales Region, who worked with Kay on the project. (Although Dwayne shares the same last name as Norm Neely, founder of the Neely Sales Region, they’re not related.)

During the two weeks of Olympic events when crowds were largest at the museum, about 24 HP people—mostly from the Southern California Neely sales offices—worked four-hour shifts at the museum to explain to visitors how HP provides information for technical and business uses.

Although it took extra work, Lionell, Bob and Nick all feel they gained from the experience. Lionell estimates he spent 360 hours on the software. “I used a lot of my technical background in a very exciting effort.”

Bob, who has a roomful of HP equipment in his home (including the HP Engineering Graphics System/200, an HP 9920 computer and a computer-aided design workstation), says he wrote a lot of the software for the bicycle design exhibit at home. Bob still sports an HP-01 calculator wristwatch. “I told you I’m an HP fanatic!”

“It was a fantastic project to work on—incredibly enjoyable,” he says. “I spent a lot of weekend and evening time on it, but it was worth it.”

Museum officials are delighted with the crowds. An estimated 1.5 million people have seen HP’s exhibit since it officially opened July 28.

“We’re very grateful for what HP has done,” says J. Rounds. “My working relationships with the HP people have been fabulous. Their level of commitment has been outstanding.”

Nick feels one sure measure of the success of the project is that it was completed both ahead of time and under budget.

And, he adds, “We all had a lot of fun doing it.” **M**



Twenty architects display their plans for renovating an abandoned automobile factory in Turin, Italy.

## SETTING VOTERS FREE

In the heyday of Imperial Rome, voting was done by a show of fists—or swords. In modern Italy, as exemplified by the huge Lingotto project in Turin, it's being done by the touch of a finger—on an HP 150 Touchscreen computer. It may well be the easiest voting procedure yet devised.

The people of Turin were asked earlier this year to help determine the fate of the Lingotto complex. The aging Fiat plant was no longer usable as an auto assembly plant, though still an outstanding example of industrial architecture. So the giant Fiat firm asked 20 distinguished architects from around the world to propose plans for alternate uses. Most of the proposals suggested multiple uses under the 60-year-old roof: shops, apartments, restaurants and conference facilities.

In May the 20 plans went on display in special booths near the factory. Registered visitors then had the opportunity to rate the various elements of each plan. In two months the opinions of more than 140,000 people had been collected via the Touchscreen computers located in each booth.

And the winner is? (We'll see.)



Fiat's five-story factory, built in the 1920s, features a rooftop test track.



Visitors use an HP Touchscreen computer to enter their opinions of the architects' plans.

## EARNING A REPUTATION FOR QUALITY



Motorola purchasing manager Larry Burleson (left) and Jim Martin of HP's Phoenix, Arizona, sales office, review equipment specifications and delivery times for an upcoming order.

The word "quality" has about as much freshness these days as yesterday's newspaper. Why, then, would anyone get worked up over HP's getting one more quality award?

Well, for starters, this isn't just any quality award. Motorola, Inc., which has a reputation for quality itself, picked HP as the winner of its first corporate quality award.

Couple that with the impressive fact that Motorola has 25,000 suppliers, yet selected HP as its top vendor for non-production materials (test and measurement equipment and computers).

"HP was our first choice for this special award," says Larry Burleson, communications division purchasing manager at Motorola's Government Electronics Group (GEG) facility in Scottsdale, Arizona. "I know other Motorola plants nominated HP, too."

The shiny gold plaque HP received is symbolic of at least two years of effort on the part of both HP and Motorola to have far more than a customer-supplier relationship. Both companies have reaped the benefits from one simple fact: "We trust each other as companies and as individuals," says Norm Matlock, who previously was the Motorola computer account team leader in HP's Phoenix, Arizona, sales office.

In 1982 Norm took a look at the worldwide volume of business between HP and Motorola. It turned out to be a multimillion dollar account divided between instruments and computers.

"Thirty-five HP field engineers call on Motorola all over the world, so I realized Motorola was one of HP's top 10 accounts—based on the amount of current and potential business there."

He credits Rick Ellinger, now marketing manager at the Information Networks Division, for raising HP management's awareness of the need to establish good communication between the two giants. (See page 19 for similarities.)

What got the communication ball rolling was a Motorola visit to HP plants in Fort Collins and Colorado Springs, Colorado, and in Santa Rosa, California. Later, a group of HP engineers and technicians from the Network Measurements and Signal Analysis divisions in Santa Rosa traveled to Phoenix to share HP technology with Motorola people.

The results of such exchanges have been nothing short of colossal, says Jim Martin, instrument field engineer on HP's Phoenix Motorola account since 1968. "This technological sharing is a new 'key-account' program started by the Microwave and Communications Group. It has proven beneficial to both HP and Motorola."

Not long ago, for instance, the Logic Systems Division in Colorado Springs needed a test site for a product under development. Because the Motorola people had visited LSD, it was easy for General Manager Dave Dayton to ask Motorola if they would be willing to help test the new product. They agreed. "I

doubt if this would have happened if the two sets of people didn't trust each other," says Norm.

Another outgrowth: An agreement between HP and Motorola that means "we've been doing business long enough that they are willing to commit to buying from us without renegotiating the terms from year-to-year," says Norm.

Motorola's government divisions do require competitive bids for procurements, but many purchases are justified based on HP's past record for quality and price.

Perhaps the best example of the good relationship that exists between Motorola and HP is the large amount of aerospace test equipment that Motorola's Government Electronics Group needed—but couldn't officially order—last year.

Recalls Jim Martin, who was HP's primary contact for that sale, "They told me what they wanted, but said they wouldn't have the funding until a month before they needed the equipment. I went out on a limb and accepted the order merely on a letter of intent."

Thus began a major coordination effort between Sue Behm, then the order coordinator in Phoenix for the Motorola account, and the many HP divisions which supplied equipment for the order.

"I needed prices and availability for hundreds of HP products," Sue says. Typically a factory won't ship anything without a contract, but in this instance

Sue drew up 10 advance purchase orders totaling nearly \$3 million and asked the divisions to agree to deliver within 30 to 60 days.

Laying all the groundwork paid off. When the contract was signed, the order went through in less than three days—and all but a few pieces of equipment were delivered within 30 days.

Frank Czagany, Motorola GEG's sub-contract buyer in Scottsdale, Arizona, went through this major buy with Jim and is now a true HP fan. "Everyone, from the order-entry people on, is very knowledgeable," he says.

"If someone isn't available, there is always another person around to help me. This takes the frustration out of being a buyer. When I call HP, I feel like the customer, not a nuisance."

There are countless other factors that contributed to HP's earning the quality award from Motorola. Every HP office that calls on Motorola, in fact, probably had a hand in. At the Fort Lauderdale, Florida, office, Motorola purchasing manager Don Burns chose to recognize the efforts of the local HP sales team by staging its own plaque presentation ceremony. Says Bill Lovelace, HP Fort Lauderdale branch general manager, "We deal with Motorola daily, so this was their way of saying we're doing a good job."

Because Motorola's corporate headquarters is in Schaumburg, Illinois, Midwest Sales Region field engineers played a hefty part in garnering the quality award. In fact, HP does business with Motorola nearly everywhere—from San Juan, Puerto Rico, to Spokane, Washington, to Tel Aviv, Israel.

But in Scottsdale, at least, a lot of Motorola people feel the efforts of the Phoenix HP people were a deciding factor in winning the award.

"Jim Martin has done such a great job for HP at GEG that we almost have a monopoly on selling them instrument equipment," says Jim's district manager, Marty Gulseth. Ken Pierce, manager of Motorola's GEG test equipment facility, now estimates that more than half of GEG's annual capital equipment budget goes to purchase products manufactured by HP.

Motorola GEG's Larry Burleson points out that the quality award was

judged on five factors: quality, delivery, pricing, management cooperation and the number of factories supported by the vendor.

"On all counts, HP is superior," he says. "The HP nonproduction products we buy are not tested in incoming receiving. They're tested by fire: We put them right on our lines and plug them in. They rarely disappoint us."

It turns out that Motorola is HP's seventh largest supplier (mostly of semiconductor logic chips). Two years ago HP gave Motorola a special award for improving (by 10 times) the quality of its chips.

This exchanging of awards is not a case of one hand feeding the other. Rather, it is due to the strong quality

commitment on the part of both companies. Not long ago Motorola distributed a brochure titled "Quality isn't our motto...it's our business," which described Motorola's corporate policy: "To produce and provide products and services of the highest quality (and) pursue goals aimed at the achievement of quality excellence."

With such a public high regard for quality, it's likely that Motorola would be a top contender should HP ever establish a permanent quality award.

In the meantime, at every Motorola factory in the world, a handsome plaque that says "Supplier Award for Excellence: Hewlett-Packard" hangs in the purchasing lobby. That's the kind of advertising money can't buy. **M**

JOANNE ENGELHARDT



Irwin Goldberg repairs an HP instrument.

## TOOLING AROUND

Irwin Goldberg is a one-man repair shop at HP's Phoenix, Arizona, sales office. Irwin spends as much as a fifth of his time repairing HP equipment for Motorola's many Phoenix area facilities. The former military man, who plans to retire on his 70th birthday next year, won a Neely Sales Region award last year as its "highest producer."

## A SIDE-BY-SIDE COMPARISON

	 HEWLETT PACKARD	 MOTOROLA INC.
Employment:	80,000	Nearly 100,000
Sales (1983):	\$4.71B	\$4.33B
Product markets:	Measurement and computation products and systems used in industry, business, science, medicine and education	Electronic equipment, systems and components for U.S. and internal markets
Manufacturing locations:	8 U.S. states and 9 other countries	11 U.S. states and 25 overseas locations
Sales office locations:	More than 70 countries	More than 110 countries
Year founded:	1939	1928
Headquarters:	Palo Alto, California	Schaumburg, Illinois

# 1234567

## DOING BUSINESS BY THE NUMBERS

Much is said and published about Hewlett-Packard's corporate objectives and management philosophy as key ingredients in the company's success. On the other hand, how many times have you heard someone extol HP's system of basic business data codes for the same reason?

That's right! Good ol' bottom-line business codes, two to three dozen in all, each made up of data elements that delineate a common way of communicating information. Now *you* may not get excited about them. But a number of people both inside and outside the company recognize their value. The inside believers seek to protect and improve the code system. Outsiders, especially larger firms with varied product lines and decentralized operations, often envy it and sometimes try to adopt it (Northern Telecom of Canada, for one, has done so very successfully).

HP's business codes, in fact, have been credited by John Young as being part of the "corporate glue" that holds the company together—that keeps the many decentralized units from fly-wheeling off into separate orbits. In combination with companywide computer systems, they help to create a flow of uniform and timely information throughout the company, enabling people at all levels to make informed decisions about their missions.

Why has HP been so fortunate to possess such an unusual system? It didn't happen easily or overnight. As a start, of course, HP's founders had launched their company with the 200A audio oscillator, so numbered to obscure the fact that this was their very first product. Various other categories of resources used in the business were subject to coding during the next decade and a half, as the benefits of this became clear.

But it was about 30 years ago that more concerted efforts were made—by a number of people—to come up with a more comprehensive system of identifying and classifying resources. At that time, the company employed 700 people working in four buildings, producing 225 different instrument products selling at a rate of \$1 million per month. Plans were afoot to expand, both domestically and abroad.

In time the system came to include codes not only for products and parts but also entities, assets, customers, suppliers and other categories of information meaningful to the company (see list). Each code sequence stands for just one kind of thing in a category, and each number in the sequence identifies just one of that kind. Even your employee number belongs to such a system of business codes.

One recurring event is noteworthy. Organizations acquired by HP over the years, such as Sanborn Company (now Waltham Division) in 1961, invariably have adopted HP codes. This is not an easy task, but they take it on because they can then tap into the resources and capabilities of the larger organization, especially in the areas of coordinating sales and service, procurement, accounting, personnel matters and product quality.

Along with the all-important common communication that it provides, the company's coded and computerized information system yields many specific benefits.

Speed and accuracy are major attributes. Customer orders are made available each day to factory, group and corporate organizations. End-of-month results can be reported in consolidated form to top management in a matter of days. This provides everyone concerned with a clear picture of how every entity is doing in all of the code categories reported—orders, shipments, inventories, expenses and the like. Such knowledge is power—the basis for "real-time" management of the company's resources.

Another major benefit is the leverage afforded by the system in purchasing components from outside vendors. Companywide contracts enable divisions to gain sizable savings on many of their purchases. Gordon Olson, manager of Corporate Materials Management which negotiates the contracts, puts overall savings at around \$200 million annually.

Such contracts also carry a lot of weight when it comes to working with vendors. Suppliers who can sell on a companywide basis to HP are in a good position to provide not only lower prices but also superior quality and



## A CODE FOR JUST ABOUT EVERYTHING

With the development of computer systems, codes that can identify, classify and summarize huge volumes of data became an invaluable resource for HP. Each code category must be clearly defined and maintained by its corporate "owner" as shown in the following list:

service. The company's new just-in-time manufacturing approach, for example, would be hard pressed without the cooperation of vendors in supplying components as needed. Would they—or could they—meet requirements for more frequent on-demand deliveries if contracts had to be negotiated on a local, small-volume basis?

The system of common numbers for components makes the companywide contract program feasible. The corporate group is currently looking at ways to expand and improve the supplier code system.

In fact, the keepers of the various codes need to exercise a good deal of vigilance in preserving the integrity of their numbers. Sometimes the "glue" breaks down in certain well-used areas when people invent their own numbers, usually because of unfamiliarity with the system. The result is like mixing apples and oranges: You can never be sure whether you're talking about one or the other—or fruit salad.

And it is important to know one from the other. Cort Van Rensselaer, manager of Corporate Manufacturing Information Systems, puts it this way: "Information systems are just tools to help people do their jobs—not an end in themselves. By having consistent coding structures we can provide a consistent framework of information throughout the company."

Cort points out that 90 percent of HP people now have access—directly or indirectly—to more than 25,000 computer terminals. "People at every level of the company are now in a position to make decisions based on the information they can call up at the touch of a fingertip. To make good decisions they need good information." **M**

CATEGORY/FUNCTION	CODE	OWNER	
Assets	Asset numbers	Administration	
Customers	Customer numbers	Marketing	
	Sales order numbers	Marketing	
	Repair order numbers	Marketing	
	Miscellaneous charges	Marketing	
	Invoice numbers	Administration	
	Internal order numbers	Administration	
Materials	Part numbers	Manufacturing	
	Part preferred code	Manufacturing	
	Part category code	Manufacturing	
	Part status	Manufacturing	
	Part item type	Manufacturing	
	Drawing number	Manufacturing	
	Unit of measure	Manufacturing	
People	Employee numbers	Administration	
Products	Product numbers	Manufacturing	
	Model number	Manufacturing	
	Option number	Manufacturing	
	Product support suffix	Manufacturing	
	Serial number	Manufacturing	
Suppliers	Supplier numbers	Manufacturing	
	Supplier status	Manufacturing	
	Purchase order	Administration	
	Purchase agreement	Administration	
	IC invoice number	Administration	
Legal and management reporting	Entity number	Administration	
	Sub-entity	Administration	
	District	Administration	
	Department	Administration	
	Account	Administration	
	Sub-account	Administration	
	Corporate sub-account	Administration	
	Work force	Administration	
	Product type	Administration	
	Product line	Administration	
	Sub-product line	Administration	
	World country code	Administration	
	Political subdivision	Administration	
	Quality	QA failure code	Manufacturing
		Warranty code	Manufacturing

# YOUR TURN

Invites *Measure* readers to comment on matters of importance to HP employees.

## WRONG NUMBER!

As one of those who had thought she had called the Queensferry Telecommunications Division only to find herself speaking with the local parish church, I can answer Jim Rigby's question (July-August *Your Turn*) as to which directory contains the error: page E-70 of the *Worldwide Sales, Service and Manufacturing Directory* lists the church's number in place of QTD's.

Tolerant as they are, these people would no doubt appreciate publication of a notice to directory holders to correct this listing.

KAREN MILLER  
Fort Collins

## REMARKABLE SIMILARITY

It is interesting to compare two excerpts of "From the President's Desk," the first by Bill Hewlett in the April-May 1975 issue of *Measure*:

"The basic operating unit at HP is the product division. It is an integrated, self-sustaining organization with a great deal of autonomy and independence. . . . The recent restructuring of the top reporting responsibilities has in no way diminished the importance of the division within the company."

The second excerpt is from John Young in the July-August 1984 issue:

"In keeping with past reorganizations, this new structure preserves much of the flavor and character of those that preceded it. The product division remains the basic building block of the company, with a great deal of autonomy in the design, manufacture and marketing of products that fit within a larger strategic framework."

Both of these messages appeared after major HP reorganizations, and it's comforting to know that some basic philosophies about HP still hold true.

BOB BERAN  
Rockville, Maryland

## A QUICK RESPONSE

Following the article in your last issue about the hotline activity at the two North American response centers, I thought others might like to know how response centers are being set up in Europe.

The European response center operations are a more distributed activity than is the case in North America. Each European country will have its own Country Response Center (CRC) which will be the focal point for hotline calls from customers. As calls come in to each CRC, they are tracked on common information systems at Computer Support Pinewood (CSP) in the U.K. Eventually there will be 17 CRCs in Europe connected to the CSP, forming the overall European Response Centers operation. Today, four are fully functioning in Amsterdam, Vienna, Brussels and the U.K. A fifth, in Paris, comes on line in the next few weeks.

In CSP, resources for resolving customers' problems are concentrated. When a call is taken in a CRC requiring more expertise or resources to solve than is available locally, specialist engineers in CSP can be involved in seconds because data on the problem will already be on the CSP computers. Specialists in CSP work in multilingual teams with dedicated hardware to back them up. The smaller teams in the CRCs screen all calls initially and have on-line access to the CSP computers to help them resolve problems locally.

The European response centers are crucially dependent on our telephone systems. Although we're using public networks today, an HP private European network is being implemented for future traffic.

The response centers are one of the most exciting developments in HP's support operations over the past few years and everyone involved with their implementation in Europe sees them playing a part in HP's future success.

GRAHAM LONG  
Pinewood, England

## WRITE ON!

What public issues affect HP people and their jobs? Do you disagree with something you've read in *Measure*?

Send us your thoughts. We want to share your opinions and comments with more than 80,000 other employees.

If your letter is selected for publication, you'll receive a *Measure* T-shirt. (Be sure to send us a return mailing address and indicate your T-shirt size—men's small, medium, large or extra-large are available.)

Address letters via company mail to: Editor, *Measure*, Building 20BR, Palo Alto. Via regular postal service, the address is *Measure*, Hewlett-Packard Company 20BR, PO Box 10301, Palo Alto, CA 94303-0890 USA. Try to limit your letter to 200 words. Please sign your letter and give your location. (Anonymous letters are welcomed, but you won't get a T-shirt.) Names will be withheld on request.

# JOHN YOUNG

HP's president describes upcoming survey of employee attitudes.



BRAD WHITWORTH

John Young poses for photographer Tom Hollyman as Barbara Jo Flick, art director for the HP annual report, looks on.

In the months ahead, thousands of HP people worldwide will be participating in our Open Line survey. Employees in the U.S. will remember that we conducted a previous Open Line effort in 1979, while those located elsewhere will find this their first opportunity to participate. Since it's a time-consuming process, I'd like to discuss why we do Open Line and what we hope to accomplish.

Open Line is a systematic way of evaluating how well we are doing at communicating and practicing the HP way. This upcoming survey will give more than 30,000 HP employees a chance to express their views directly but anonymously. Created in partnership with a consulting firm, Open Line is a structured exercise in listening.

Open Line is only one way that HP asks for employee opinions. There are other, more traditional methods—the open door policy, management by wandering around, and the informal exchanges at lunch breaks and coffee pots. These are important communications channels, and Open Line cannot serve as a substitute for them.

Despite these ongoing methods of getting feedback from our employees,

the systematic approach of Open Line provided us with some valuable information in 1979. Not surprisingly in a company as decentralized as HP, most action areas identified by the survey results were local in nature. More than 85 percent of the recommendations stemming from our first Open Line involved issues that could be resolved at the divisional or operational level.

In the companywide results, pay and benefits topped the list of employee concerns. This feedback helped spur a better articulation of pay and benefits philosophy, the adoption of flexible time off (FTO) and the "TaxCap" retirement benefit (401K), increased training programs, and stepped-up efforts by your personnel community to communicate on the complexities of the programs they administer.

It is interesting to note what response categories employees viewed most positively in 1979: their relationships with work associates, their job satisfaction, and their sense of identification with the entire HP organization. These are fundamental areas, and our strength in them gives us the ability to ask ourselves if we could be doing even better. We're not complacent, and I hope we never will be.

It's that unwillingness to rest on our laurels that prompts this second, worldwide employee survey. We have some 80,000 employees worldwide now, and it's just not possible to meet and talk with everyone. Open Line will reflect the views of a wide cross-section of HP people. The data we receive will provide a helpful view into the company's activities around the world.

Our first Open Line survey was conducted in 1979, when we had 50,000 employees worldwide. This second survey comes not only after much growth, but after much change in our work force. More than half our employees today were not with us in 1979. We expect this second survey to provide fresh insights into HP's work force and its concerns.

The people who participate in Open Line will be chosen at random, to ensure that the broadest possible range of views is expressed. Those who complete the survey won't be asked to sign it, and no person at HP will ever see an

individual's completed questionnaire. Our goal is to encourage open and frank responses. For that reason we've asked our independent consultant, International Survey Research, to do the compilation of results. In 1979, employees responded enthusiastically to the chance to answer anonymously the survey's questions. In fact, the greatest challenge then was to respond to the many employees not selected to participate and explain to them that the statistical validity of the results precluded any volunteers.

Let me stress that Open Line is much more than a systematic listening exercise. It's the beginning of a process, and its real value lies in the work that goes on after the survey results come in. Open Line is not a report card for HP or any of its business entities. It is a self-examination whose goal is to help us identify areas where actions can be taken to strengthen our operations.

The most creative part of the Open Line process comes when individual business entities receive their compiled results. Each division or region will have trained leaders who will facilitate group discussions on what the results mean for that entity. The people in the groups will work together to formulate action plans for addressing the issues they identify, and then submit those recommendations to the appropriate management for their response. A summary of all recommendations and responses will be given to employees.

For a company like HP, our "search for excellence" is an on-going process of self-examination and self-renewal. Open Line is a valuable part of this process, and those of you who participate in it during the months ahead will be making a real contribution to us all.

# NEWSCLIPS

Recaps the newsworthy events, changes and achievements within HP.

## BOARD OF DIRECTORS

**Hicks B. Waldron** was elected to the Hewlett-Packard Company board of directors at its September 21 meeting. Waldron is chairman, president and chief executive officer of Avon Products Inc., New York and former president and CEO of Heublein, Inc.

At the same time, the board named two new vice presidents: **John Blokker**, Components Group general manager, and **Bob Wayman**, who was also named chief financial officer of the company. Wayman continues to serve as company controller. **George Newman** was named treasurer.

## OTHER CHART CHANGES

The Information Systems and Network Sector under Executive Vice President **John Doyle** has been restructured, resulting in the creation of several new groups and three new divisions:

The former Information Products Group under VP and GM **Dick Hackborn** has split into a new Peripherals Group (Greeley, Computer Peripherals Bristol, Disc Memory, San Diego, Vancouver and Boise divisions) headed by him and a new Information Networks Group (Information Networks, Grenoble Networks and Roseville Networks divisions and Colorado Networks Operation) which John Doyle will initially manage directly. **Wim Roelandts** has been named GM of the Information Networks Division.

A new Information Technology Group with five entities has been formed under **George Bodway**. The three operations within the former Computer Integrated Circuits Division have now been elevated to division status: Fort

Collins IC Division (formerly Systems Technology Operation) under GM **Jack Anderson**; Cupertino IC Division (formerly Cupertino IC Operation), GM **Bob Waites**; Northwest IC Division (formerly Corvallis Components Operation), GM **Fred Schwettmann**. Newly formed are the Information Hardware Operation under **Dana Seccombe** and the Information Software Operation under **Bill Worley**.

The Design Systems Group has formed a new operation within the Logic Systems Division: the Logic Design Operation under **Erik Lessing**. Programs from the former Engineering Productivity Division are being re-assigned to the new operation, the Fort Collins Engineering Operation (which now reports directly to Group GM **Bill Parzybok**) or the Cupertino Integrated Circuits Division.

The new Administrative Productivity Division under GM **Dave Sanders** is part of the Information Systems Group. The division comprises the Information Resources Operation, Administrative Productivity Operation and Financial Systems Operation.

Two new operations have also been formed: the Handheld Computer and Calculator Operation under **Ernst Erni**, and Data Systems Division's Advanced Manufacturing Systems Operation under **Jim Olson**.

## EUROPEAN CHANGES

In European Operations, Italy has been elevated to full sales region status. (It had been part of the multicountry Southeast Region.) Managing Director is **Roberto Albanesi**. HP Italy, celebrating its 20th anniversary this year, has

headquarters in Milan and branch sales and service offices in nine cities. Italy is now the fourth single-country region in Europe. (The others are France, the U.K. and West Germany.)

At Geneva headquarters, **Franz Nawratil** has been named to the new position of director of marketing and sales, Europe, to head the consolidation of those activities for instruments and computers. **Alfredo Zingale** becomes director, corporate development, Europe, and **Peter Kohl** is European marketing manager.

Sales region managers have been named in the U.K. and France to relieve their respective managing directors of direct supervision of all sales activities. They are **Roger Thornburn**, U.K., and **Philip Handtschoewerker**, France.

## NEW HATS

**Mike Forster** has been named operations manager for HP Puerto Rico.... At Intercontinental Operations headquarters, **Mike Naggiar** has been named manager of Intercon marketing, sales and support and **Lee Ting** heads corporate development and manufacturing.... At YHP, **Toshio Muraoka** joins the office of the president, assisting **Kenzo Sasaoka**, and **Maseo Terazawa** assumes overall responsibility for marketing, sales and support.... U.S. Field Operations has created new role of region sales manager to reflect the company's July reorganization. Named to the posts are **John Sundry**, Eastern Sales Region; **Duane Dobratz**, Neely Sales Region; **Bob Sudkamp**, Midwest Sales Region; and **Russ Stewart**, Southern Sales Region.

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



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