

Measure

For the men and women of Hewlett-Packard/APRIL 1980

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Open Line gets down to business...

The statistical results produced by the Open Line attitude survey conducted by HP in its U.S. organizations late last year (summarized in the February issue of MEASURE) were just a beginning. Over the past two months the all-important phase of feedback and analysis was begun.

Launching pad for this phase at many divisions and regions was a general meeting or series of meetings. Their subject was local results: How did our people respond to the many questions raised in the survey?

Next stage was analysis sessions by smaller groups of ten or a dozen people. Their task was to dig into problem areas, define the problems they saw and recommend action.

Now begins the sorting and action phase: Is this a local problem? A group problem? Or one that should be handled at the corporate level?

We'll all know a great deal more about that action later in the year. Meanwhile, thanks to Open Line we already know much more about our work attitudes than we did last September.





Local survey results were placed in the hands of analysis teams of 10 or 12 people charged with defining problems and recommending action. Defining an area as a "problem" required a 50 percent agreement of the team members, whereas resolutions could be made by individuals. Here Linda Loew, Diann Neilsen and Armando Hernandez, members of a corporate non-exempt team led by Linda A. White—discuss an issue. In all they defined 4 problems and offered 21 resolutions. An overall company report on Open Line action taking will be published later this year.

General meetings were used by Delcon Division to report Open Line survey results—just one of the various ways the program has been communicated. All U.S. organizations participated in the survey last September. People surveyed were chosen randomly through the use of employee numbers.

Hundreds of HP employees learn where they earn through the video classroom

For millions of Americans, daytime television means soap operas, old movies, game shows and reruns of "I Love Lucy." But for some 300 Hewlett-Packard employees, daytime television brings them "Optimal Estimation and Control Logic in the Presence of Noise" and "Industrial Financial Management."

The employees take part in one of several programs that bring graduate-level science, engineering and business courses to HP plants throughout the world. The courses are broadcast live throughout the Bay area (and videotaped for mailing elsewhere) by the Stanford Instructional Television Network.

The network traces its roots back to 1953 when Fred Terman, who was then Stanford's dean of engineering, agreed to let a few engineers from some newly established industrial-park companies enroll in graduate engineering courses on a part-time basis. Today the program has exploded to include some 60 Bay-area companies and a television network that rivals those of commercial television for programming and distribution.

Television was added to Terman's Honors Co-op Program in the late 1960s to solve three problems: students having to drive hundreds of hours to classes on campus; students having to enroll in back-to-back courses to save commuting time, sometimes settling for second and third choices; and engineers who needed continuing education but didn't want an M.S. degree.

Today, courses are broadcast live from classrooms in Stanford's Skilling Building and Terman Engineering Center via a transmitter site on Black Mountain, seven miles southwest of the campus. Four channels of programming (3, 8, 10 and 12) bring courses to Bay-area companies from 8 to noon and 1 to 5. A two-way audio hook-up allows students in the off-campus classrooms to ask



Tutor Jim Rueter stops the videotape in the Waltham classroom long enough to explain "cache memory" to Jeff Ginsburg, Dan Finlayson and Yael Melman. Jim, a lab project manager, was the first Waltham employee to be accepted into the Honors Co-op Program.

questions of the instructor and to carry on discussion with any other remote classroom.

Homework assignments, notes and exams arrive by courier from campus every day, and the television students are graded the same as their on-campus counterparts.

Five years after the program began, Hewlett-Packard's Santa Rosa site was chosen as a testing ground for the next logical extension of the Stanford program: graduate courses via videotape. What makes Stanford's program unique is that each course has a company-provided tutor who supplements the taped lectures. Results of the initial experiment at Santa Rosa showed that performance of the students using Tutored Videotape Instruction (TVI) equaled or exceeded that of the on-campus stu-

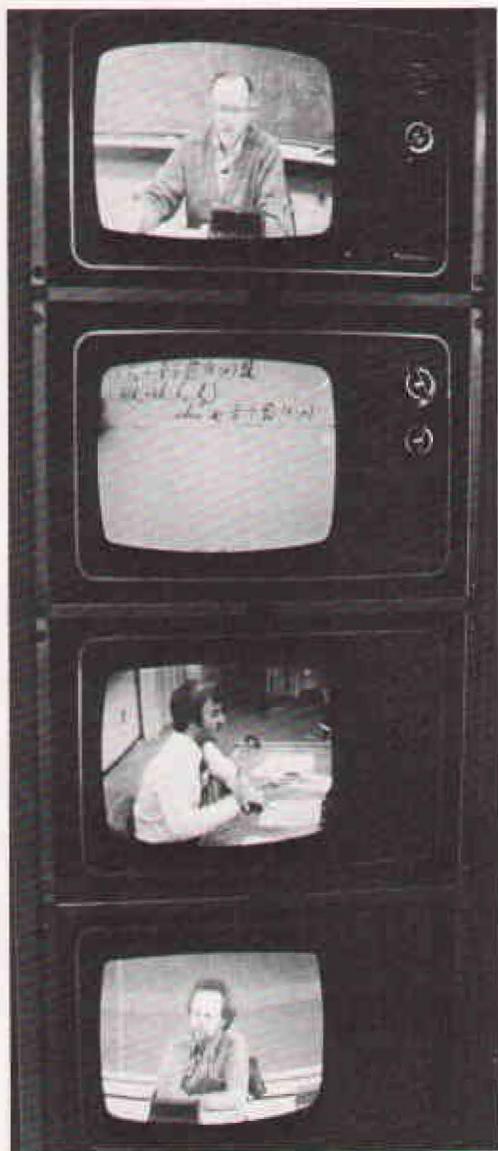
dents. Today, tapes of the live courses are mailed to HP plants in Andover, Avondale, Boise, Colorado Springs, Corvallis, Loveland, San Diego, Santa Rosa, Waltham and Grenoble.

For Bob McKnight, a development engineer at Andover, the mailed videotapes were a blessing. Bob had taken a couple of courses on the Stanford campus and had used the live network presentations to finish three-fourths of his master's degree while working in Cupertino. He transferred to Andover, and took the last courses there on videotape.

"The videotape has a couple of advantages over the live broadcasts," says Bob. "You and the tutor can watch the tape anytime you want, instead of following a rigid broadcast schedule. And you can stop the tape and go over it again if there's something you don't under-

Students in the Skilling Building on the Stanford campus share video monitors as they watch the instructor explain a mathematical formula. Instead of writing on the blackboard, video instructors write on a pad in front of them which is scanned by an overhead camera.

Stanford's four channels of live programming can't be seen at home on commercial sets. These science and engineering courses are sent by microwave to a transmitter in the mountains southwest of Palo Alto. Special antennae at every receiving location unscramble the signals into channels three, eight, ten and twelve.



stand. That, in most cases, outweighs the disadvantage of not being able to ask the instructor questions during the live broadcast."

The Stanford courses aren't cheap. Honors Co-op students pay nearly \$800 for the normal three-unit course. HP picks up the tab for employees who meet the requirements for the program, fill out the necessary forms and acquire the necessary approvals.

A less expensive alternative to the program from Stanford is a rival videotape network begun this last year by the University of California's Berkeley campus. More than 200 HP employees from seven divisions now watch videotapes (the program is not broadcast "live") and mail course work to the campus for grading. In contrast to the \$800 price tag the Stanford courses carry, Berkeley's credit

courses cost less than \$350. Berkeley also offers a strong curriculum in the ever-changing field of computer science—a drawing card for growing numbers of HP employees.

Lutz Reuter, manager of the technical skill group in Corporate Training, sees the Berkeley courses as another choice. "What we want to offer to employees is a broad menu of skill and technical courses for their continuing development. The Berkeley courses serve to expand our offerings," said Lutz.

For those who'd rather have an M.B.A. than an M.S., Golden Gate University offers a degree program broadcast on Stanford's television channels through an organization named ACE. The Association for Continuing Education was formed to provide courses in management, technical and personal

the video classroom

It takes 12 full-time employees and a part-time student crew of 35 to keep the television network running smoothly. The master control room is the hub of activity where programs are monitored during the live broadcast and videotaped for mailing around the world.

skills using hours when Stanford is not broadcasting graduate engineering and science courses.

There are currently 19 HP employees in the Bay area who go to their TV classrooms to watch such programs as "Financial Management" and "Human Problems of Administration." The master's-by-television program appeals to "an older audience," according to Becky Smith, manager of employee development. "Most of our graduate students are in their 30s and have been out of school for a while. ACE gives them the chance to earn their degree while working full-time."

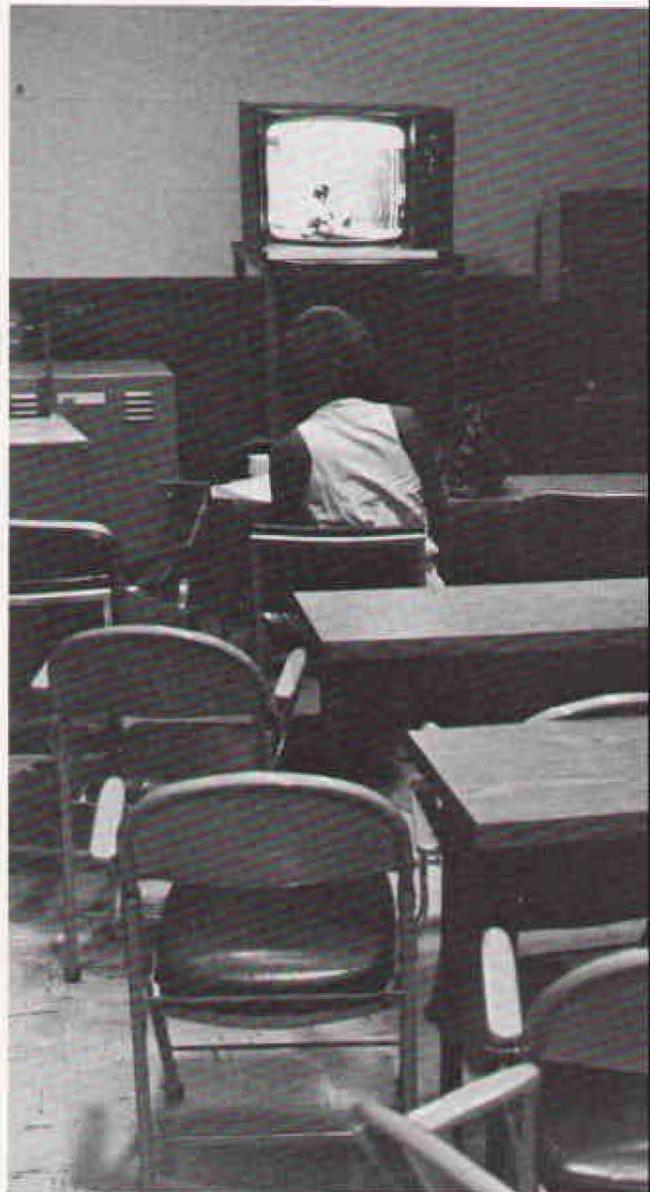
Courses are taught by people who work in their fields of instruction. Exams tend to be research projects, case studies and take-home essays instead of hour-long memory tests. "The courses are less theory and more reality," said HP's Marialis Seehorn. "The instructors are practical people who talk in practical terms about real-life situations. In an international marketing class our instructor told us first-hand about situations his company had faced in various parts of the world."

Mary Lou Allen, who runs Stanford's television network, sees the field of televised education growing in the years ahead. "We've seen how successful this medium can be in allowing the university to reach out to a larger potential audience," says Mary Lou. More universities and more companies are climbing on the TV bandwagon. Local universities, which don't have the glamour of a Stanford or Berkeley, are also developing their own taped curricula. The University of Colorado at Colorado Springs has produced a series of tapes that are currently used at HP's Colorado divisions.

The Association for Media-based Continuing Education of Engineers now publishes a catalog with more than 300



Watching a live televised engineering course at one of the six HP sites can be a lonely experience, although a two-way audio hook-up permits asking the Stanford instructor a question any time. More than 60 Bay-area companies have similar classrooms which receive the courses.



License for export: your product's going nowhere without one

different videotaped courses available from its 21 member universities.

The future holds the possibilities of color broadcasting (particularly appealing because of the color graphics needed to teach VLSI courses), two-way video, and extended broadcast range by using satellites. So someday your normal daytime TV fare might include the continuing adventures of "Digital Filtering" broadcast live from a university campus thousands of miles away.

A sample of Stanford's video offerings broadcast each **Wednesday**

8AM 12 DIGITAL TELECOMMUNICATIONS

9AM 6 DESIGN AND ANALYSIS OF DYNAMIC SYSTEMS

Professor Barkan explains to his students the modeling, analysis and synthesis of practical devices in which dynamic response is a dominant consideration. (50 min.)

8 STATISTICAL OPTICS

10 EARTHQUAKE ENGINEERING—Serial

Will San Francisco crumble? The class learns everything there is to know about design of structures to minimize earthquake damage. Host: Professor Shah.

12 BIOLOGICAL INFORMATION PROCESSING

10AM 4 ADAPTIVE SYSTEMS

8 APPLIED AERODYNAMICS

Dr. Ashley of Stanford University talks about computational fluid dynamics, paneling methods and further treatment of blubb bodies

10 STATISTICAL METHODS IN ENGINEERING AND PHYSICAL SCIENCES—Documentary.

A first course for engineers and physical scientists, starring Professor Iltas.

12 LINEAR ACTIVE NETWORKS

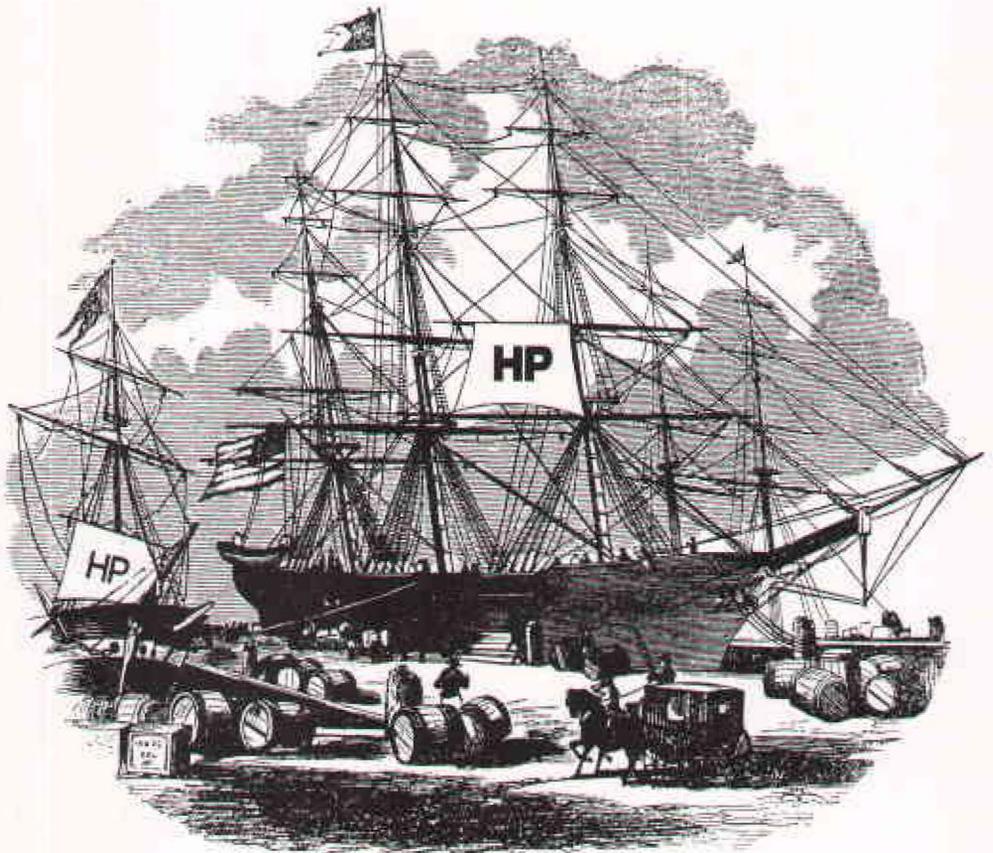
11AM 3 SURVEY OF ENERGY INDUSTRIES

Dr. Horn and his students look for energy sources for the 21st century.

8 LINEAR ALGEBRA AND ITS APPLICATIONS

10 NERVE AND MUSCLE—Medicine

Bioelectric phenomena, ionic channels and neural synopsis are discussed by Professor Ingels in a show about nerve and muscle for engineers.



When President Carter announced on January 4 that he was halting the issuance of new licenses for shipping sophisticated goods and technology to the Soviet Union in retaliation for the invasion of Afghanistan, the news caused a deep intake of breath in Hewlett-Packard's Vienna office overlooking the Danube.

Obtaining the necessary authorization to permit licensable products and parts to cross borders is a complex business even in normal times and with the friendliest of trading partners. In extreme cases, such as doing business with the Soviet Union and other Eastern European countries served by the Vienna office, it can take up to a year to obtain the necessary licenses.

On January 9, the President dropped the other shoe: licenses which had already been granted to the Soviet Union were suspended for all goods and technology that had not yet been supplied.

That meant nothing requiring a license could move to the Soviet Union from HP's custom-bonded warehouse at the Vienna airport. Several million dollars worth of HP orders were stuck in the "pipeline," and 106 authorized licenses had to be returned to the U.S. Department of Commerce in Washington, D.C.

Ironically, just a month before, the HP Vienna licensing department under Guenther Lechner had given special priority to shipping out by December 31 a large order of analytical equipment ordered for the Moscow Olympics in June. One major concern now was whether HP would be permitted to fulfill the warranty service that was part of the approved sale, since certain types of service parts and training are also subject to licensing. At press time, HP's ability to provide service had not yet been restored nor had any answer been received to the company's request to provide service for humanitarian reasons to several life-

License for export

sustaining medical systems in Moscow and Leningrad (which hopefully will be granted).

The moratorium has not been extended to cover the other East European countries served by HP Vienna: East Germany, Poland, Czechoslovakia, Hungary, Rumania and Bulgaria. (Yugoslavia, which is also served by the Vienna office, falls into a different country-group classification from a licensing standpoint.)

The Soviet Union, like other East European countries, buys in accord with a hard currency allocation which expires at the end of the calendar year. Many orders not delivered by the end of December must be negotiated all over again. Due to the push to move goods by December 31, HP's Vienna warehouse was cleaner than at any other time of the year when the U.S. moratorium was declared.

While the Vienna licensing activity reports through Europe, Guenther also is frequently in direct touch with Palo Alto. In order to pay closer attention to the sensitive area of export licensing, Hewlett-Packard last September established the first Corporate Export Administration activity under Larry Langdon's Corporate Tax, Customs and Export Administration department. Tom Christiansen, manager of International Trade Relations, continues to represent the company in trade matters including export licensing before various government agencies and the Congress, directly and through a number of trade groups in which HP participates.

Max Fallet is European customs, traffic and export licensing manager, located in Böblingen, while Chuck Marr holds the corresponding position at Intercon headquarters in Palo Alto.

Who else at HP cares about licensing? The list is long. In the U.S., those making direct shipments to overseas points—the Eastern and Western International distribution centers (which handle about 80 percent of the export volume from the

U.S.), the Corporate Parts Center, the Software Distribution Center, and various groups involved in board exchange programs—get involved in export licensing and statistical reporting. So does every division that supports one of the company's international factories, or ships directly to customers. In the field, every quotation for sales outside the United States includes the clause "dependent on securing U.S. government approval." Outside the U.S., the insistence of the U.S. government on guarding against unauthorized re-exports must be understood by all international sales offices. Double licensing is often necessary when goods manufactured in the U.S. are to be re-exported.

Hewlett-Packard applies for a large number of individual licenses in the U.S. each year, with the actual paperwork handled by three locations: the Eastern Distribution Center on behalf of Europe, Intercon headquarters, and Corporate Export Administration.

What are the ground rules for licensing the flow of goods between countries? Generally, they are set by COCOM, a coordinating committee established in the late 1940s by the NATO countries (except for Iceland) plus Japan to control shipments to the Soviet Union and its allies.

Over the years COCOM has developed a list of dual-purpose items—those which could be used either in military or commercial applications—that its members may not export to certain countries with COCOM concurrence. Periodically the list is reviewed, new technologies such as microprocessors are added and others are removed in light of new production capabilities in the Communist countries.

The United States also has its own export controls. (Fortunately, these don't affect Hewlett-Packard deeply.) The particular country to which an item is going and the end use make a difference



in the level of control assigned. At one end of the spectrum is Canada, which is unique: the U.S. requires no licenses of any kind for shipments of commodities for use in that country. At the other end is Country Group Z, under the strictest regulations: Cuba, North Korea, Vietnam and Cambodia.

The U.S. government is concerned about strategic commodities that could damage the national security, exports that are related to foreign policy, and domestic goods in short supply.

The U.S. is also the only country in the world which extends its licensing authority beyond the original sale to insist on a "re-export" license for certain products to be resold to buyers in third countries. Tom Christiansen has called it a way of guarding against the "two- or three-cushion-shot" in which an item



Recent U.S. restriction on licenses for trade with the Soviet Union is discussed by Max Fallet (left), who heads HP's licensing activities in Europe, and Guenther Lechner of HP Vienna. Until last month Max wore a second hat as acting manager of the new Corporate export administration activity now headed by Dick Herdman.

Fortunately for Hewlett-Packard, a major exporter, many products that are controlled can go to non-Communist countries under one of the company's special licenses which cut out the need for thousands of individual applications. The "project license" is used for shipment of parts and components to HP factories outside the U.S., and the "distribution license" for finished goods to international sales facilities. Repair and spare parts are covered by a separate service supply license.

For export transactions that don't qualify under a special licensing procedure, HP must apply for an individual license by declaring who is receiving an item, where it is going, the dollar value, what it is, the quantity, and the purpose for which it will be used. License applications for computer systems destined for Communist countries require a number of detailed attachments, and typically run around 18 pages. One HP license application for three systems going to the U.S.S.R. ran 128 pages.

The Department of Commerce reviews all license requests, but other government agencies—such as Defense, State and Energy departments—may also want to see the applications and sometimes disagree with one another on whether licensing should be allowed. Licenses for strategically important goods may also require approval from COCOM in Paris.

Penalties are high and getting higher for failure to properly export or re-export goods, whether willfully or carelessly. The level of fines has jumped in

one year. Procedures for treating violations are tightening up, with penalties that run from censure and fines (up to \$100,000) to loss of export privileges—a severe blow for an international company—and even imprisonment for an officer of the company in extreme situations.

No matter what type of license is used, export statistics must be reported to the U.S. Bureau of Census, which uses them to determine the volume and direction of U.S. exports, and other data. HP is one of the few companies allowed to send in condensed summaries on tape in place of typed declaration forms.

The computer has also come to the rescue at Intercontinental to solve the order coordinator's problem in selecting the right licensing control. The HEART order validation file is passed through a new export licensing module on the HP 3000 to give the proper code based on product number, country of destination and customer.

For HP Vienna, the complex licensing process doesn't necessarily end with shipment of products into the Communist countries, Guenther Lechner is one of two licensing people in the Vienna office who makes the rounds of Eastern Europe four times a year inspecting certain sophisticated HP systems to make certain they haven't been diverted to military use. U.S. regulations state that as a condition of sale the Western representative of the exporting firm must have access to the computer at any time, and the number of annual visits that should be made is specified.

While this is a burden, it could be worse. Guenther points out, "Computers over a certain memory size may require monthly visits, and really large installations involve having a resident inspector on site for two or more years."

Certainly the inspection visits are the ultimate follow-through in the cautious licensing process that is a fact of life for Hewlett-Packard in conducting international business.

could wind up in the wrong pocket through a series of moves. While re-export licenses are aimed at the Communist countries, they also affect the Free World trade. The question has been raised that U.S. re-export licensing may be unfair to the other COCOM countries which have agreed to exercise the same degree of export control.

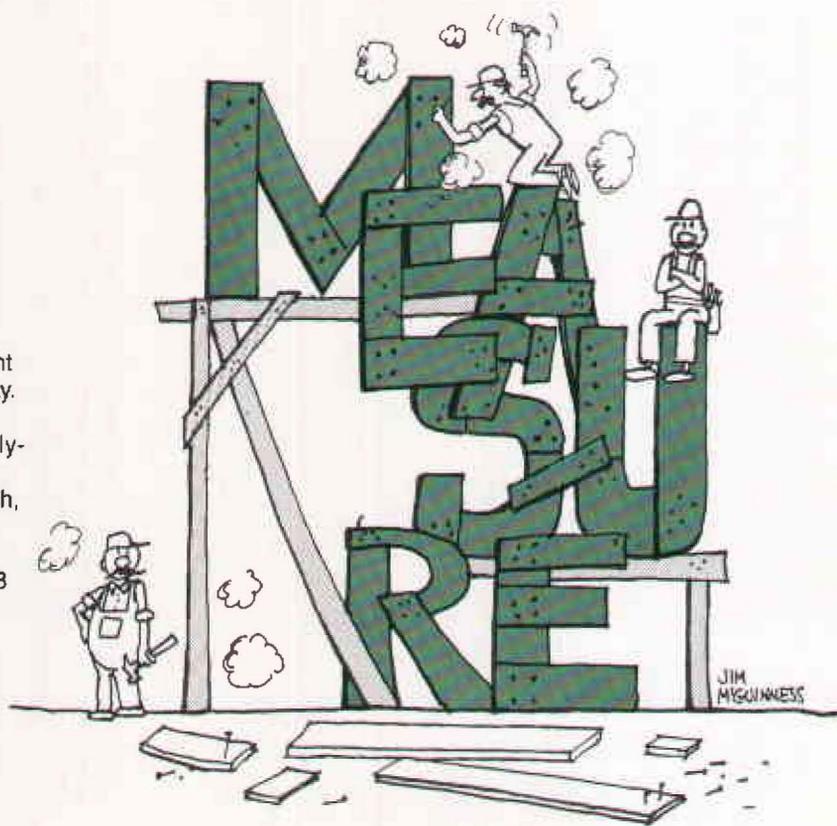
What is expected of an exporter such as Hewlett-Packard? Under the U.S. control system, the U.S. exporter must determine the control status of each product by matching its technical specifications against the various categories shown in the U.S. Commodity Control List. (HP uses some 500 categories and subcategories.) Goods that are not controlled need only a general license—and non-licensable HP instruments can still be sold to the U.S.S.R. today.

Roundup

Pardon our dust

MEASURE's in the process of changing, and we want you to be aware of the construction that's underway. Beginning next month you'll see a bigger, brighter MEASURE with 24 pages of HP news, features, analysis, photos and a new selection: letters (see back cover). We'll be coming your way every other month, with the delivery of the premier May-June issue scheduled for the beginning of June.

Response to our readership survey late in 1978 pointed to several areas of MEASURE which could use some fine tuning. As a result, you'll see a greater variety of items in each issue, a new "look to the book" and our letters-to-the-editor feature where you will have an opportunity to discuss HP issues with other employees around the world.



From dollars to yen, and back again

Three managers from Yokogawa Electric Works, HP's joint-venture partner in Japan, learn the capabilities of Intercon's computerized local currency trade invoicing system from Tim McSweeney, systems administration manager. Hideo Kishi, Yodichi Yamakawa and Fumio Yoda spent three weeks at various HP divisions studying methods for automating and managing administrative and manufacturing control functions. They hope their study tour will result in a reduction of overhead costs for YEW.

Computers for a growing China

The changing skyline of Beijing (Peking) is one sign of the modernization efforts taking place in the People's Republic of China. The chief construction engineer and HP's Chi-Ning Liu, manager of marketing for the PRC, take in the view from the new building which will house an HP 3000 computer.

The computer is one of five which were ordered through the United Nations Development Program and will be used by several government ministries, state and municipal bureaus and a university for economic analysis of transportation, food and domestic goods distribution, hospital management, housing construction and power distribution.

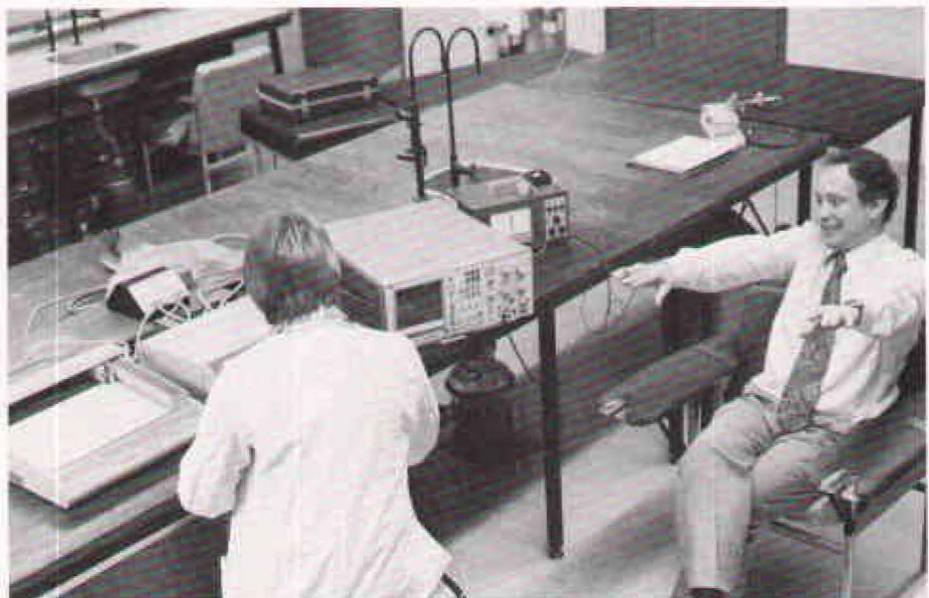
HP helps tackle nerve disease detection

Early diagnosis of nerve disease such as Parkinson's may now be possible thanks to pioneering work by medical scientists and engineers at the University of Nottingham, England, and a trio of HP products.

Parkinson's disease, or shaking palsy, usually occurs after age 50 without warning, and is progressive and chronic. The test for Parkinson's used to be placing a sheet of notepaper on the back of the subject's hand with the arm extended and to gauge visually the shaking paper edge (Try it!).

Now, HP engineers, using non-medical HP products, are working with the Nottingham medical staff to complete a study to establish a pattern of normal, measured finger tremors. Since different types of tremors are associated with different pathological conditions, each disease may have a characteristic spectrum associated with it, making possible early detection when compared with norms.

At Nottingham, visual recording of movement is achieved by attaching a sensor (accelerometer) to the tip of the middle finger and translating the tremors into an electric signal. This signal is amplified and interpreted by the 3582A Spectrum Analyzer produced by the Loveland Instrument Division. The several frequency components are then processed by a 9825A Desktop Computer from Fort Collins (hidden by the operator in the photo). Finally, information is graphically recorded by a 7225A Plotter from the San Diego Division. And with the HP-IB linkage, the operator's responsibility is reduced to start, monitor and stop.



The case of the disappearing jobs

At HP, the times, they are indeed a-changin'—many new people, new product lines, new locations, new markets and reorganizations.

Concern over the effects of such dramatic changes on jobs was visible in results of HP's Open Line attitude survey of U.S. employees (MEASURE, Feb., 1980).

These general concerns became very specific recently for the employees of the Manufacturing Division's transformer shop in Palo Alto. The transformer department of the Bay-area HP division is housed at the leased Harbor site, a vista of manicured lawns and fountains near Embarcadero Road in Palo Alto. On August 23rd, it was announced that the shop would decentralize operations. That meant transformer production would transfer to the Santa Rosa and Roseville divisions of HP. The reason for the decentralization? It had become too expensive to produce transformers in leased facilities in the Bay area. In human terms, it meant that 170 people at the Harbor site were given the assignment of finding new jobs within HP by May 1st. Shirley Gilbert describes how they faced a time of upheaval and change.

Decentralization.

The neutral 'tion' word doesn't say too much. It doesn't say anything about Irma Rehbein. Irma had been a winder in the transformer shop for more than 16 years. When she first heard the news, she gulped every time she thought about having to find completely different work. Irma knew that HP had no need for winders in the Bay area.

It doesn't say anything about engineer Floyd Pruitt. He'd worked for HP and with transformers for more than 21 years. Floyd joined HP soon after Paeco (Palo Alto Engineering Company), a small, separately owned organization that produced transformers for HP, was purchased and became part of the company in 1959. He hadn't had a job interview for something like 27 years.

It doesn't say anything about Michelle Shea. She'd been with HP at the Harbor site for two years. She had been promoted to skill specialist and was just beginning to feel really settled into life at the Harbor. Then she learned she had to move on.

"It was quite a blow to us all," said Jerry Flandro, acting manufacturing manager of the Harbor site. "When we heard the news, there were a lot of jokes about the Titanic. But behind the grim humor, there was a little bit of tragedy. After all, 170 lives would be disrupted by the move. Some of our people have

worked together for 15, 20, 25 years . . . as far back as Paeco days. They have literally watched each other and their families grow up. The new people were especially worried. Some had come from companies that did wholesale firing when a shop dissolved. I knew it wouldn't be easy."

And it hasn't been easy. But it hasn't been tragic either.

This is mainly because of some special cooperation on the part of supervisors, Harbor employees, Bay-area divisions, and a dedicated task force, chosen from within the division and the transformer shop, formed to make the move from the Harbor as painless and as peaceful as possible.

Senior personnel representative Steve Umphreys is part of that special group. He has been working with a personnel team to make certain that employees at the Harbor site get the kind of new job challenges they want. "We aren't here," said Steve, "to 'place' people at all, because that implies a certain lack of freedom and choice. We hope to relocate everyone into assignments that are challenging and enjoyable. That's our objective."

One of Steve's most pressing assignments, after Harbor site transformer employees heard their jobs would be phased out, was to combat an army of rumors that were flying about the shop. To that



Top: "I know there's something good out there for me" is Irma Rehbein's attitude. Here she gets lots of support from Bill Hayden (left) and Steve Umphreys of Harbor site personnel. Bill and Steve were members of the task force that developed the decentralization program, including the special bulletin boards. **Middle:** Wishing each other and Harbor site farewell are Michelle Shea and Helen Johnson—Michelle to Santa Clara Division and Helen to the Corporate mail room. **Bottom:** Already successfully transferred is Jeff Shinseki. After two years in the transformer shop he's pleased with the change of pace offered in Manufacturing Division's warehouse.

Harbor site—as it was before the lights went out.

end, the personnel task force put out a publication they called *Scratch-A-Rumor*. In it, they printed all current rumors and squashed them with the truth. Sample rumor: "Is it true there will be no salary increases or promotions during the wind-down?" Answer: "False. No salary increases or promotions will be held up due to the wind-down." And, added Steve, none have.

The rumors showed that people had two major concerns. "There was a lot of anxiety," said Steve, "about the process of decentralization. Would employees get information on other kinds of jobs? How would they put a resume together? How should they present themselves at an interview? They were also concerned about whether the usual HP personnel systems would remain in place during the wind-down. Would there be evaluations? Would they remain in financial limbo? I don't think anyone was really worried about losing a job. They knew, and we assured them if there was any doubt, there were plenty of good jobs and opportunities available in our company."

Then began the work of putting together a hefty, bound book of Harbor site resumes. There were career counseling sessions, tips on interviewing techniques, resume-writing instruction. "We wanted everyone in the shop to rethink their career objectives. Here was a perfect chance to start something new, do something exciting and challenging. And people really responded," said Steve.

The book of resumes went to all Bay-area division personnel departments. Tours were arranged so Harbor site job-seekers could get some idea of the kinds of work available in other HP locations. Job opening lists were posted near work stations. And representatives from other HP divisions visited the Harbor to give employees some background on their divisions.

"We've really been heartened," said personnel task force member Bill Hayden, "with the response we've received from other HP divisions. They've bent over backwards for us and tried to cooperate in every way possible."

Ron Gonzales, personnel representative of the rapidly growing Data Termi-



nals Division in nearby Cupertino, felt it was important to place heavy emphasis on Harbor site job hunters. "We saw it," said Ron, "as an opportunity to get some really good, experienced people. We didn't worry too much about skills—we were willing to train people. We looked for things like dedication and ambition. And we saw a lot of that. We have a lot of new employees here and we saw this as a chance to get a better balance in our division by hiring some seasoned HP people." Data Terminals Division has hired a great many Harbor site employees and will be interviewing more in the hopes of increasing the number.

But Harbor site people found those first interviews hard going. "It's a bummer," said one engineer, "that first interview after ten years or so. After that, it gets easier."

Winder Irma Rehbein is getting to be an old hand at interviews. She's had four to date. Irma is looking for work in the testing and quality assurance field. Is she worried about finding a new assignment? "I'm not at all worried," said Irma. "HP? It's a terrific company. And I get a lot of support from people around me and from personnel. I know they'll help all they can and there's something good

out there for me. It's going to be fun... making the change," said Irma with a twinkle in her blue eyes.

Response from Bay-area divisions has been so enthusiastic (the Manufacturing Division alone has absorbed about 35 Harbor sitters), that Steve reported there are only 25 employees left who need jobs.

But there's a sadness in the air at the Harbor site. "You can see it happening," said Harbor section manager John Dupre, "there's a feeling of loss here. Machines are being pulled out. There are empty spaces here and there. You see people cleaning their desks. You know they'll be going. The family is breaking up. On the other hand, there's also a sense of excitement here. People come back from interviews with job offers, plans and ideas for the future."

To keep morale up, the personnel task force has held monthly get-togethers for shop employees. Last month's was a "Steak Out" lunch to which transferred, former Harbor site people were invited. Most seemed happy and excited about their new assignments. Karen Gillmore, previously a transformer stacker at the Harbor, now was pleased to be doing clerical work. "The new job wor-

...disappearing jobs

ried me a little but now I feel a lot better about it. I think of it as a challenge." Engineer Floyd Pruitt is now a production engineer at Optoelectronics Division in Palo Alto. "It feels good to be learning something new."

Transformer skill specialist Marge Burgdorf couldn't attend the steak luncheon. She had transferred to Santa Rosa to work in the newly created transformer shop there. "It was hard at first," said Marge about the move, "I cried in my pillow every night. Gosh, I've worked with transformer people for six years. But now I'm glad I've made the change. It's worked out well for me."

The last days at the Harbor site have a bitter-sweet quality to them according to remaining employees. Harbor section manager John Dupre is putting together a memory book of transformer shop history, activities, feelings. "We asked people to capture—in words, pictures, poetry—the way they feel about the phase-down. We thought it would be good to leave something behind... some evidence that we worked together, that we were here, how we felt about breaking up."

To the question for the memory book: What three words best describe your feelings about the wind-down? one employee wrote: "Stress, sadness, anticipation."

Perhaps the most moving submission to the memory book came from Job Lopez. Job joined HP a year and one-half ago and has transferred recently to Stanford Park Division. The wind-down was Job's first encounter with the HP Way. He ended his essay with the following reflection:

"Leaving... means we have to separate ourselves from some of the people we have felt very close to. But at least we know that we are just leaving the transformer shop; and not the company. And that makes a big difference for all of us. That means we are still going to have its people, its benefits, its policies, its opportunities for us to progress, and its warm spirit. In other words, we know we are still going the same way... the HP Way."

HP news

Manufacturing begins in Spokane

Manufacturing operations are now underway in Spokane, Wash., and Ned Barnholt has been named manager of the newly formed Spokane Division. The new division, which currently has 150 employees, eventually will have full responsibility for radio frequency instrumentation products. Right now only the 8640 signal generator and the 8660 synthesized signal generator are being produced in Spokane. Other instruments will be transferred from the Stanford Park Division gradually.

Fellowship, medal won by HP employees



Bud Cristal

- Edward "Bud" Cristal, development engineer at Stanford Park Division, was elected a Fellow of the Institute of Electrical and Electronics Engineers (IEEE) for "significant contributions to the theory, analysis and design of microwave filters, directional couplers and equalizers." Bud's a seven-year HP veteran who started with the Electronic Research Lab of HP Labs.
- Dave Bloom, a member of the technical staff of the Applied Physics Lab of HP Labs, received the 1980 Adolph Lomb Medal for his pioneering work in nonlinear optical processes. The medal is presented every other year to a person who has made a noteworthy contribution to optics before reaching the age

of 30. His award was based on work he did at Stanford University and Bell Labs before joining HP last year. He was an HP summer employee for three years while in college.

New DSD operation formed

Data Systems Division has created a new HP 1000 Operation in Cupertino to parallel the structure of its existing Roseville operation. Gaylen Larson has been named operation manager. The new HP 1000 Operation will have its own marketing, engineering and manufacturing functions according to DSD general manager Dick Anderson.

HP names in the news

- Jim Hacker joined HP in March as Corporate Security manager. He has responsibility for protecting HP's property and employees, training and supervising security personnel and serves as liaison with all law enforcement agencies.
- The new manufacturing manager for the Computer Groups is Tom Lauhon, who headed HP's Southeast Asian operations from October 1972 to July 1976 and later started up the first separate division for computer service.

Happy birthday, HPSG

HP Singapore celebrated its tenth anniversary in February with a plant reception for employees and community leaders. In the decade, the operation has grown from 60 employees to nearly 2,000 and now manufactures a variety of products including instruments, consumer calculators, data cartridges and components.

From the president's desk

I used the occasion of the HP European management meeting last month to route myself there by way of HP Sweden. It had been 15 years since my last visit, so I was anxious to get an update on the Swedish market, the largest in Scandinavia, and on our country organization.

On my original visit in 1965, I was the relatively new manager of HP's Microwave Division, which has since evolved into a much larger organization encompassing the Stanford Park, Santa Rosa and Spokane divisions. I was in Sweden to help introduce a remarkable new product, the spectrum analyzer. A few veterans, including Leif Ericson, now country manager, remember this event well, as the spectrum analyzer is a key element in what has become a highly successful HP product line serving the worldwide communications industry and especially so in HP Sweden.

Needless to say, things have changed. You may have read an interesting article in the last issue of MEASURE describing HP's activities in Sweden. But it was particularly enjoyable and worthwhile for me to pay a personal visit. I was able to meet many of our 183 people in Sweden, and hear of their activities and programs that are generating an annual growth rate of more than 40 percent. We also called on major accounts such as L. M. Ericsson, a world leader in telecommunications. A lunch was arranged at the Royal Swedish Academy of Engineering Science, during which I was able to describe HP's technology and operations to a number of top members of the Academy.

We have a fine team at HP Sweden, and the future looks bright. I'm planning to return in 1982 for the dedication of our new sales headquarters building in Stockholm.

As for the European management meeting, it was hosted this year by HP France. The actual location was in Monte Carlo on the French Riviera, where we were able to take advantage of reasonable, off-season hotel rates and enjoy the excellent meeting facilities and moderate climate for which the Riviera is noted.

The theme of the European meeting was similar to that of the general management meeting held earlier in the year. However, a great deal of attention was focused on specific European interests and issues.

Our European business, which accounts for about one-third of HP's total volume, continues to show good strength. For the past two years growth in orders has exceeded that in the United States. Since we established our roots in Europe about 20 years ago, we have built a very strong base of sales, administrative, manufacturing and product development ca-



pability. This is proving to be a real advantage as we move into a more competitive business climate.

To accommodate the rapid growth of our European operations, we have been decentralizing some of the activity previously concentrated in our Geneva headquarters. We now have five distinct regions—three representing the key markets of Germany, France and the United Kingdom, and the other two comprising the Benelux/Scandinavian and the Eastern/Mediterranean countries.

At the recent meeting we reviewed in detail the operations of two regions, France and the U.K., to see how the new regional structure is progressing. The objective of this transition is to assign greater responsibility and autonomy to each region. For example, each is now responsible for its own information systems, financial controls and building programs, in addition to sales and support activity and associated profit centers such as service and system engineering. The transition has gone smoothly, and in typical HP fashion the strong teams we have in place in each region are assuming their additional responsibilities with a great deal of skill and enthusiasm.

Europe's sales forecasts and growth plans for the next five years are optimistic, exceeding the average for the rest of the company. But judging by what we heard and saw during our visit, and the momentum that exists throughout the entire European organization, I feel they have an excellent chance of meeting or even exceeding their ambitious goals.

John Young

A penny for your thoughts



A penny won't buy much these days, but we hope it's enough to get you to write to the editor of MEASURE about almost anything you think will be of interest to the 52,999 other HP employees who receive this magazine.

For example, what broad and general questions about company policies and practices are on your

mind? Would you like to comment on a public issue that you think directly affects HP people and their jobs? Or would you like to raise a point concerning a recent MEASURE article?

The editor of MEASURE will select for publication and response those letters judged as most relevant, timely and interesting to the readers. Responses to questions will be obtained from the best available company sources. In cases of more than one letter on a question we'll provide a common response. Quite often we'll use only excerpts or condensed versions of letters, in the interest of brevity.

This exchange is not intended as a substitute for the communication that should take place at the local level. Questions that are job related or of a local or personal nature should be discussed with your supervisor or local management; MEASURE simply can't answer such questions.

Please keep your letter under a page or 200 words, and send it via intercompany mail to the Editor, MEASURE (Public Relations, Building 28A, Palo Alto). Please sign your message and tell us where you work, although, in sending it on for a response, we will not identify you if you so request.

Do it before the end of April and we'll send you a shiny new penny just for telling us what's on your mind. But don't stop there. Letters to MEASURE will be open for business from now on.

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