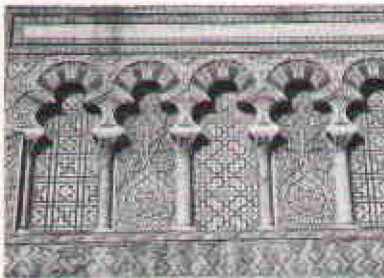
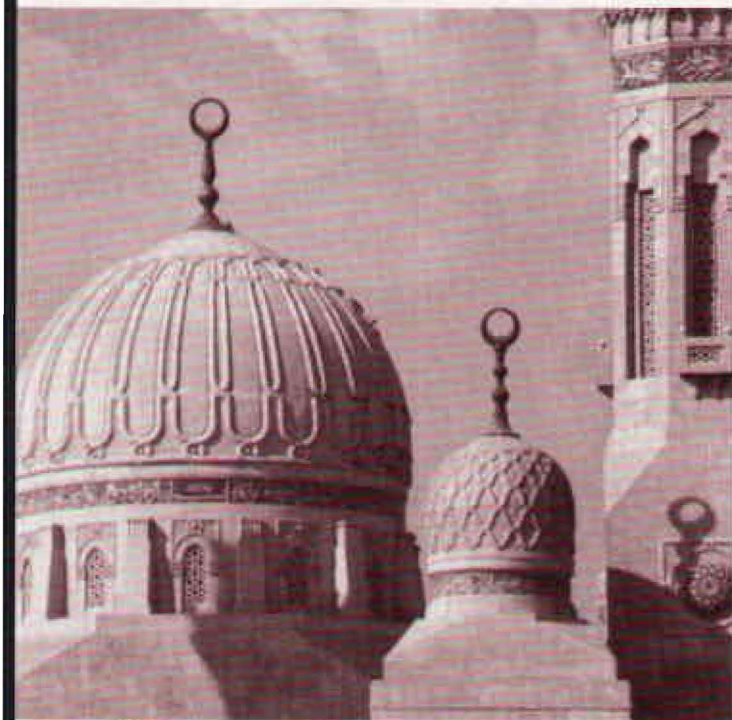


Measure

For the men and women of Hewlett-Packard / NOVEMBER 1977



- Middle East business — a special report (pages 2-8)
- The HP information network (pages 9-13)
- From the president's desk (page 15)
- Measuring up (page 16)



Iraq



Morocco

HP in the Middle East

**Doing business in the world's
oldest, newest marketplace**



Turkey

Doug Herdt, area manager for the Mediterranean and Middle East, discusses sales strategy during a staff meeting in Athens. Seated are George Panos (left), administrative assistant for finance, and Tony Gunn, sales supervisor for Computer Systems. Not all Middle East sales are supervised by the Athens office: Israel, for example, is represented by a distributor organization whose HP sales are reported through the Intercontinental Sales Region in Palo Alto.



Dick Hornor (left), Middle East service manager, and Natale Mazza, medical sales manager, discuss cost figures for support of a new hospital installation. The quality of pre-sale and post-sale service is an important consideration to the Middle East customer.



HP's Geoff Bonham and his wife tour the ruins of the ancient Persian city of Persepolis. Geoff was recently named manager of Hewlett-Packard Iran Ltd., a country sales organization separate from HP's Mediterranean and Middle East Area Operations.



Iran

□ "We're delighted to see the 'gold rush fever' subside in the Middle East," said HP's Doug Herdt to an official of the American-Hellenic Chamber of Commerce in Greece. Doug is general manager of HP's Mediterranean and Middle East Area Operations headquartered in Athens, and his statement seemed to sum up a great deal of what's been happening in the region in recent years.

Four years ago the Middle East became an important market almost overnight. Arab nations — faced with the realization that their oil reserves were finite — began a race against time to industrialize. And their need for western technology brought a host of international companies scrambling to stake their claims in this lucrative new market.

It was a frenetic atmosphere that HP

was never very comfortable in, according to Doug. "Before pursuing sales volume," he recalled, "we wanted to establish a proper structure for a business that would last a long time." That approach seems to have been the right one, because now that a more stable business climate prevails in the Middle East, the company has a solid sales and service organization to build on.

But it hasn't been easy.

Until 1974, sales of HP products in the region resulted mainly from "fallout" of advertising and promotion in other markets. A coordinating office in Rome handled the small amount of HP business in the Mediterranean, North Africa and the Middle East.

When it was decided to make a serious, long-term investment in the area, HP followed somewhat the same strategy that

had worked well in other parts of the world. Needed was a strong central base, some carefully selected and trained distributors throughout the region, and a heads-up service organization.

A team of seasoned field engineers, managers and support people was assembled in a leased building in a pleasant suburb of Athens. The headquarters organization was chartered under Law 89 of the Greek government, which regulates international companies directing regional operations from there. While most "Law 89" companies are recent refugees from Beirut, HP made a positive decision in favor of an Athens headquarters long before the civil war in Lebanon.

Why? "Because it has a good infrastructure," Doug explained. "Mail and telephone services are good. It's a pleasant

(continued)

the Middle East



Iraq

place to live. Travel and communication are convenient. It's also close to both North Africa and the Near East. And there's a very good work ethic in Greece, so we've been able to find very high quality, conscientious people. Another advantage in operating from Greece is that it's really a transition culture between the Near East and the West."

Living proof of this transition culture are the half dozen Arabic-speaking Greeks employed by HP in Athens. In fact, Greeks, Arabs and Arabic-speaking people from several Middle Eastern countries have been recruited. "They adapt extremely well to 'the HP way'" Doug said. "Increasingly, as expatriates leave to return to their home countries, the 'Mediterraneans' take over. At one point there were 26 expatriates. By the end of 1978 two thirds of them will have returned home."

Distributors and manufacturers' representatives provide an important link between HP and its customers — not only in the Middle East but in many parts of the world where it would not be economical to maintain an HP sales force. Al-

though Doug has had years of HP experience in the international sales arena, the Middle East presented altogether different problems. "In Western Europe, selecting reps and distributors usually meant choosing one organization from among three or four," he said. "But in this region such organizations just didn't exist. These were underdeveloped markets, with no traditional need for high technology products. There were no organizations all set to take on the full range of Hewlett-Packard equipment, as well as pre-sale and post-sale support. Instead, we had to find organizations we could *develop* into effective distributors and reps."

Refusing to be rushed, HP took an average of six months to search out and reach an agreement with each of the organizations that now represent HP in twelve Middle Eastern countries.

It was essential that their business principles and ethics be consistent with HP's. "We had to find partners who were in tune with us," Doug insisted.

The HP rep or distributor should likewise have objectives consistent with those of HP, including the desire to develop



Tony Awad (foreground), general manager of Al-Khaldiya, an HP distributorship in Kuwait, shows off new facilities with two of his service personnel. "These fellows have done a tremendous job in establishing service for us in Kuwait," said HP service manager Dick Hornor.



technically. "We want to work with someone who has a specific interest in building a business based on high technology," said Doug.

And finally, the organization must have the local resources HP needs: good people, adequate financing, strong commercial connections, and an understanding of HP's customer group.

After-sale service was another capability that turned out to be as challenging to establish in the Middle East as the sales operation, but it was considered vital to the selling effort. Consistent with the company's general marketing philosophy, HP could not, as Doug put it, "just sell and forget."

"We decided we had to have our products serviced as well as sold by distributors," said Dick Hornor, service manager in Athens. "It was becoming very expensive to have HP people flying 'round robin' trips through the region to service products. In addition to the expense, we started selling some highly sophisticated products that required almost instantaneous service support. We couldn't provide that from a central place."

A sort of "starter" kit was developed which included a detailed handbook to enable the distributor to start almost from scratch and set up a complete service facility. When an agreement was reached with an organization in, say, Syria, Kuwait, or perhaps Turkey, Dick would schedule what he called a start-up visit to look over the operation. "Sometimes the distributor didn't even have a service operation to start with," Dick said. "So we would discuss all the parameters — products to be serviced, how many engineers would be needed, their backgrounds, the kinds of training HP provides, test equipment they would need, the necessary tools, the basic parts inventory they would have to order from us, what types of service kits would be required to support the installed base, how we handle our documentation, the price lists for parts and service contracts, what was needed in the way of videotape recorders and microfiche readers. We would talk about repair center site preparation — the electrical requirements, air conditioning, lighting, and so on. All this is in the book, which we would leave with them."

The handbook is incredibly thorough. Thumbing through it as he spoke, Dick touched on some unexpected problems: "Work benches. We started out with imported ones manufactured in Germany — nice ones, about a thousand dollars each. Then we found that in some countries they weren't allowed to import workbenches. They had to make them locally. So we provided some designs for wooden ones."

He had to re-write the recommended spare-parts lists, cutting them to the bare essentials for organizations that couldn't afford to invest in a more complete inventory.

"We also had a lot of trouble with voltage stabilization," Dick added. "In some places the voltage is supposed to be 220 but runs about 175 most of the time. So they had to have voltage stabilizers."

Some of the distributors were technically less experienced than others, but by working closely with each for a period of several months HP was able to develop them into very capable service organizations.

(continued)



Egypt



HP's Rainer Dern instructs computer operators of the Ministry of Industry and Minerals in Iraq. This was one of the first satellite systems in what will eventually be a network of 21 HP 3000 computers throughout the country. Terminals have been adapted for Arabic character sets reading from right to left.

Aziz Rifaat, who heads an HP distributor organization in Egypt, visits the pyramids at Giza with his family. Distributors and manufacturers' reps in the Middle East have been carefully chosen and trained to maintain HP standards of quality in sales and service.

the Middle East

In Iraq, and to some extent in Saudi Arabia, HP's own service personnel support large installations of HP equipment and help provide a springboard for further sales in those countries. The Iraqi Ministry of Industry and Minerals has ordered 21 HP 3000 computer systems, now being installed at sites all over the country for production and inventory control, payroll and other accounting functions.

To head up the HP operation in Iraq, Mustapha Elhinnawy was transferred to



Bustling Baghdad is often short of hotel space, so two or three rooms in HP's branch office there have been set aside to accommodate visitors. A breakfast conference starts the day for (from left) Willy Stucki, Computer Systems regional service manager based in Geneva, Mustapha Elhinnawy, branch manager, and Rainer Dern, HP 3000 specialist.



Iran

Baghdad from Boeblingen where he had worked in systems R&D. Mustapha is Egyptian by birth, understands the Arabic language and culture, and wanted to return to the Middle East. His top technical expert is Rainer Dern, who was one of the most senior HP 3000 specialists in Europe. And rounding out the operation is a staff of Iraqis, including several engineers with broad technical experience.

Except for petroleum and petrochemicals, there is only fledgling industry in the Middle East. HP customers, for the most part, are the government ministries and public utilities. Many countries are investing heavily to improve the quality of health care, so the medical products business is one of HP's strong suits. Orders tend to be large ones for equipping new medical centers such as the King Faisal Hospital, Saudi Arabia's showcase facility in Riyadh.

"Our business is almost all with contractors building turnkey hospitals," said Natale Mazza, HP's medical sales manager in Athens. "Generally the end users—

Tales from the Middle East

Natale Mazza, Middle East sales manager for medical products, talks about the time his flight was delayed more than twelve hours because an Arab prince had appropriated the airplane to fly somewhere else. Instrument field engineer Brian Oliver tells of being in Egypt when it was 46 degrees celsius — that's 115 Fahrenheit — in a duststorm! Administrative assistant George Panos, on his first trip to the Middle East, was surprised to find that the hotel desk did, indeed, have his confirmed reservation but didn't have a room for him.

The stories are swapped over coffee and croissants back in Athens, where they can be remembered with a sense of humor. The duststorms don't come along every day, of course, but the searing heat does in the summer months. And with

doctors, nurses and so on — aren't yet very well defined. Sometimes not even the director of the hospital. Our discussions are with the architects, sometimes the country's ministry of planning and finance, the ministry of health, and later on the contractor who offers a total package, including HP instrumentation, to the ministry of health. And the difference between western and eastern cultures is such that sometimes I feel like I'm arbitrating between a team playing soccer and another team playing American football."

You don't sell in this region by talking about advanced technology, according to Natale, and neither is price a big selling point. "Customers are more sensitive to the training and service we offer, because so far there's a lack of qualified people in these countries," he explained.

Medical sales have doubled in the Middle East in the past year, and the potential is enormous. Since 1974, \$2 million worth of ECG and patient monitoring equipment have been delivered to King Faisal Hospital. Another facility in
(continued)



HP medical service specialist Les Thorley inspects ultramodern facilities of the King Faisal Hospital. Saudi Arabia has invested heavily to upgrade the quality of its medical care, and has purchased millions of dollars worth of HP medical equipment and service contracts.

the influx of foreigners, the traveler is plagued by delayed flights, overcrowded hotels and other maladies with almost the same regularity. The Middle East is in a period of transition, and the HP expatriate selling and servicing products in this region must endure a certain amount of "culture shock" and a variety of inconveniences as well as the harsh physical environment. Over the past few years, however, there have been many improvements in physical facilities for the international traveler.

An HP field engineer in the Middle East typically spends 50 percent of his time traveling. "After about two weeks on the road your efficiency is way down," said Natale, "and you have to spend some time back in the office."

It can be rough on a man's family life. John Inglis was on just such a travel schedule until he was offered the job of setting up a service operation in Saudi Arabia, largely to support the installed

base of medical equipment at King Faisal Hospital. John and his family welcomed the move to Riyadh because it meant more time together, and they have adjusted nicely to their new lifestyle. The Inglis children attend an international school, and the hospital itself is a large modern compound where HP people can swim and play tennis with other expatriate families. Women do not have equal rights

in Saudi Arabia, however, and are not allowed to drive or move about freely.

In Iraq, on the other hand, HP wives have more freedom but must do without some other conveniences. HP's Rainer Dern and his wife receive a "care" package — an ice chest loaded with cheeses, sausages and other European delicacies not available locally — whenever a fellow employee flies in from Athens.



John Inglis

the Middle East

Dhahran will receive more than \$1 million worth, and there are many new hospitals planned in Syria, Libya, Iraq and other countries.

When HP is getting established in a new region, administration can be one of the most difficult aspects of setting up the operation. But it's also one of the most important. Fernand Savary, a French-speaking Swiss, was brought in from Geneva to serve as commercial services manager in the Athens headquarters.

Fernand compares the Mediterranean-Middle East area in some ways with the Intercontinental region. "Like Intercon we

are working with some reps, and we have some direct customers. And, like Intercon, we never *see* the customers." The big difference, he feels, is that Intercon has had a lot longer to smooth out the problem areas.

HP deals with about twenty different countries, both large and small, in the region. Administrative skills are quite good in some and very lax in others. "It can be very frustrating for our order processing people," Fernand explained. "They may ask for a correction on a letter of credit, for example. Then it doesn't get corrected properly and instead something else gets changed, and this can go on and on. Communication is still fairly difficult."

Nevertheless, the Athens office won very high marks for administration in a recent internal audit. And many of the problems, in fact, are problems only because HP insists on a degree of accuracy and legality that's higher than the usual standard in some countries.

The Middle East is an area that defies generalizations, however, and what can be said of one country may not hold true for any other. The territory stretches from the Atlantic Ocean to the Persian gulf, with countries varying in size from tiny sheikdoms to the almost sub-continental land mass of Saudi Arabia. The differences in cultures, religions, languages, and politics are greater than most westerners imagine, and not all Arab countries have oil riches.

But if a generalization could be made, it's that all of the nations of the Middle East and North Africa are engaged in a monumental effort to raise themselves up by the bootstraps in terms of education, medicine, industry and living standards. HP hopes to participate and to contribute to that effort for many years to come. □



HP's Middle East headquarters is in Kifisia, a former resort area that has retained much of its charm while becoming a residential and commercial suburb of Athens. Typical of Greek office buildings, this HP leased facility has apartments on the top two floors.



Greece



The information network that knows how, and where, and when...

HP's computer network is bringing you the best of both worlds— a high degree of independent local computing power plus a very responsive corporate information system. It also happens to be a pioneering version of revolutionary new concepts in “distributed data processing.”

□ Someday it may be possible to look back over the history of data processing and determine just when it was that those big centralized computer complexes first began to lose their all-powerful position in the industry. For the moment it's enough to note that a major revolution is occurring, bringing new freedom to computerland. And today, instead of being always centralized, data processing is being “distributed,” bringing it potentially to the fingertips of anyone needing it—as they need it, where they need it.

Hewlett-Packard has contributed substantially to the revolution. First, of course, it developed its own small instrumentation computers just over eleven

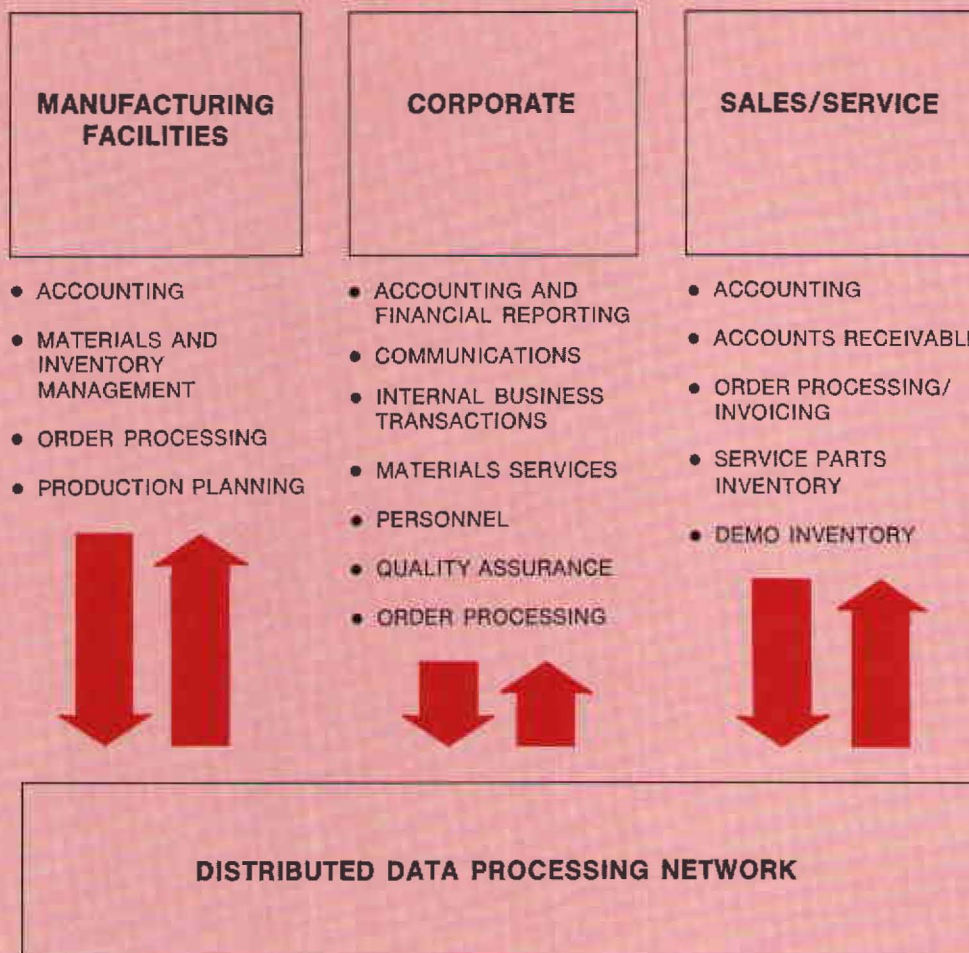
(continued)

the information network

years ago. These have since evolved into very versatile state-of-the-art systems used widely by business and industry as well as in engineering and scientific applications. Then in recent years, HP has employed its own computers to give its factories, sales offices and corporate organization a system that provides powerful local as well as network capabilities.

One important element of that capability—Comsys, the low-cost computerized company-wide communication system—has been described in previous issues of *MEASURE*. In the future we plan to look more closely at the way HP divisions are employing computer systems to manage their factory operations. Here we'll look particularly at the "distributed" data processing network developed by HP for its overall information needs.

The HP information system



Without question, the most important consideration in designing the HP network has been to make it fit the company's operating philosophy. Among other things, that philosophy tries to give the divisions and field sales/service organizations a high degree of operating autonomy, provide the corporate management with the information needed to make timely decisions, and serve customers on a "one company" basis.

In keeping with that philosophy, it is essential for areas of the organization that need certain kinds of information to have ready access to the basic data, and to manage its flow locally. How the HP system has been set up to match local information needs with data-processing responsibility is represented by the list of functions shown in the illustration for each of the three main areas of the company.

At the same time, it is equally essential that information flow readily, as needed, between the three areas. The very size and geographic dispersion of the HP organization, together with the many requirements and opportunities for sharing information call for an ever-alert and efficient communications link between the organizational components. The HP network provides that link.

Rather than attempt to explain all the workings of that very complex HP network, let's examine a photographic slice of the system as it operates today. Let's find out, for example, if there really is a connection between Helsinki, Finland, and Boise, Idaho:



The large Geneva EDP center has been described as a "mini headquarters" because it performs almost the same range of functions as the corporate system in Palo Alto. In particular, it consolidates all European customer orders for batch transmittal to Palo Alto, and also receives and distributes Europe-bound data from Palo Alto. Such messages include data to and from the European factories. Here, Denis Marco (left) and Javed Amin review CRT display of data being processed on HPSA's central computer system.

At least once each day—depending on volume—the corporate Comsys center communicates with outlying computer links, including U.S. manufacturing divisions, sales regions, Intercon country organizations, and Geneva. For purposes of economy, the network uses the "batch" mode of communications rather than "on line" (or continuous), and achieves further economies by compressing the data with the use of an HP 2026 computer, the same computer that is used for transmission and receipt. Here, Comsys operator Don Mott monitors one of these "electronic mail" hookups.



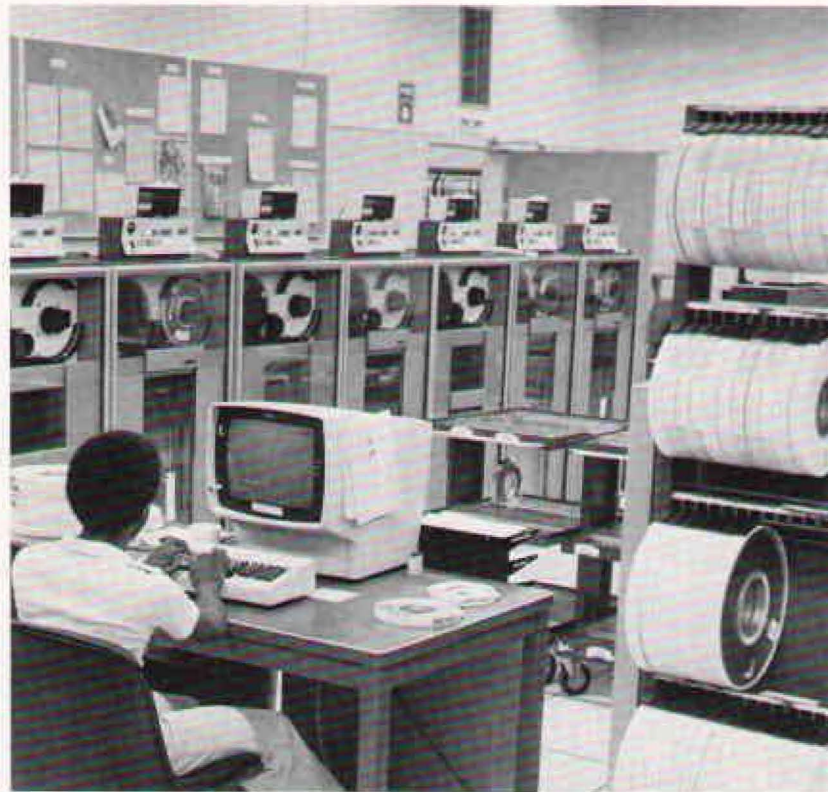
Customer orders provide the basic charge that energizes the HP data processing network. Here, in HP's Helsinki, Finland, sales office, Marja Karakorpi enters an order on the computer terminal, while Marja Puonti, at right, tends the computer. The orders are batched on tape, and transmitted daily to Stockholm. After consolidation with other HP Scandinavia orders, they are sent via Comsys to the HPSA data processing center in Geneva. This gives HPSA a daily picture of European orders. In keeping with the basic concept of distributed data processing, HP's country organizations use their local computer capabilities to perform important accounting, inventory management, and personnel support as well as order processing.



(continued)

the information network

Orders received by Comsys in Palo Alto are processed in the corporate EDP center. That order from Finland, for example, is recorded by Comsys on tape, then processed in the EDP center. The order processing system (Heart) separates the order and directs the specific items to the divisions involved in the order, in this example to Boise. On receipt of their portion of the order, the divisions establish a shipping date and initiate an acknowledgment which the corporate EDP center consolidates for transmittal back to the customer. In this way it is not apparent to those customers in Finland that they are dealing with a multi-division organization. Here, computer operator Ron Bramlett checks a computer job being run using one of the 18 tape drives employed by the corporate EDP center.



Evolution of the HP network

All of a sudden, *distributed data processing* is the wave of the future, taking over the thinking and planning of DP managers around the world. Hewlett-Packard is in the very forefront of that movement both as a user and a seller. How this came to be was described for MEASURE by Cort Van Rensselaer, manager of Corporate Information Systems:

"Ten to 15 years ago, computers were employed for strictly local operations—in the beginning at such major locations as Loveland, Boeblingen, and of course Palo Alto. What we had in the Bay Area was a common computer center shared by half a dozen divisions and corporate departments. Each user organization had to coordinate any special requirements or changes with the others, and had to live with delays and problems over which each one had little control.

"Then, in the 1970 period when the company encountered problems in the management of inventories and receivables, an important discovery was made.

Divisions outside the Bay Area who were operating their own independent computer systems were doing a better and faster job of 'getting a handle' on their inventory problems. We recognized that the common-system approach no longer served our needs.

"What we did was go to RJE—remote job entry. This involved installing HP computers in the factory and field-sales organizations as input-output terminals tied to the big computer center in Palo Alto.

"RJE gave the divisions a good measure of local responsibility for their computer operations. It encouraged them to develop expertise in data processing. But it was an interim step because RJE also required a lot of central coordination and handling of information at places far removed from the people who actually needed that information."

"The next logical step has been to install local computers along with a distributed data processing network capabil-

ity. It's an evolutionary process that's still in progress."

Commenting on "distributed data processing" from a marketing viewpoint, HP Computer Systems Group vice president Paul Ely noted that the HP system has served in a number of very important ways.

"It helps to qualify HP as a major supplier of computer systems because many potential customers visit the network and are impressed by HP's use of its own equipment and systems. It is also an excellent proving ground for our technology."

Ely pointed out that distributed data processing is a rapidly changing concept. There is no single definition, and different organizations have different needs. HP is able to meet every level of need, from highly centralized to highly decentralized, and offers more options between these two than any other small-computer supplier.

Distributed processing began to come of age at HP with the advent of the Comsys ("electronic mail") system. Later came "remote job entry," and more recently the use of HP 3000 computer systems, using sharable applications software.

This process is still evolving, and today 27 major operating units have installed such systems, with another 21 due in 1978. A major key to DP at HP has been the cooperative development of various modular programs which provide the divisions with a basic factory-management system each can use or adapt to its own needs. In this view of an HP 3000 system at Microwave Semiconductor Division, information systems manager Joe Podolsky discusses a report taken by computer operator Pat Percelle.



A typical "on line" computer terminal operation—entering division target information—is performed here by Gayle Dickson, an MSD accounting clerk. Gayle was trained in the use of the HP 2644 terminal in just a few hours of instruction by one of the programmers. The division's information system employs 16 people, including 6 operators and 10 in programming and management. About 25 division terminals are used for on-line data entry and access to data stored in the system. In addition, the system consolidates various financial and shipment data on worldwide operations of the Components Group.

Ultimately, the success of distributed data processing rests on how efficiently it puts information into the hands of people who use it in making decisions. George Bruner, a stock clerk at the Boise Division, reports that on-line access to current inventory-status information has given him the ability to get things done with much greater accuracy and speed. The goal, of course, is to protect against production-line stoppages due to parts shortages. "If any questions arise," says George, "I can query the system to find out the exact up-to-the-minute situation in a matter of seconds. The system lets me know when a stock is down to a certain level. I'll get on the phone to the buyer who then can contact the supplier. Since Boise is a long way from most supply sources, it's important to give plenty of advance notice." □



HP News

Alberding heads Medical Group; Mariotti named HPSA manager

PALO ALTO — Dick Alberding has been named general manager of the Medical Products Group. Succeeding Alberding as managing director of Hewlett-Packard S.A. is Franco Mariotti.

Alberding, 46, succeeds Dean Morton, who last month was elected an executive vice president and director, and assigned responsibility for three of HP's six product groups. In his new position, Alberding will head the company's Medical Products Group, which is headquartered in Waltham, Massachusetts. The group's four operating divisions had sales of \$119 million in Fiscal 1976.

Mariotti, 42, previously was marketing manager for Europe with headquarters in Geneva, Switzerland. As HP's top executive in Europe, Mariotti will oversee a region that last year generated nearly \$400 million in orders.

Replacing Mariotti as marketing manager of Hewlett-Packard S.A. is Andre Breukels. He previously was general manager of HP's subsidiary company in The Netherlands.

Alberding, born in Elgin, Illinois, received a business administration and science degree from Augustana College in Rock Island, Illinois, in 1953 and an electrical engineering degree from Chicago's DeVry Technical Institute in 1958. He joined



Dick Alberding

the Hewlett-Packard marketing department the same year and subsequently held positions as customer service manager, parts manager and international manufacturing manager. In 1965, he was promoted to manager of HP Inter-Americas and since 1968 has been the head of HP Europe.

Mariotti, a native of Florence, Italy, holds a doctorate degree in engineering and a degree in nuclear physics from the University of



Franco Mariotti

Padua. He also received a master's degree in electrical engineering from the University of California at Berkeley in 1960.

Mariotti joined Hewlett-Packard in 1960, serving as a product specialist in Geneva before being appointed manager of HP Italy in 1964. He was named data products sales manager for Europe in 1969 and in 1976 was promoted to marketing manager of HP Europe.



From the president's desk

With the lead-time demands for printing *MEASURE*, I find myself writing my first "From the president's desk" letter as a just-about-to-be president, learning to adjust to the full meaning of my new responsibilities. Since I'm in this transitional period, perhaps the best place to start is to introduce myself to that fairly large number of you whom I haven't yet had a chance to meet.

I grew up in Oregon, and after finishing high school I went on to Oregon State University in Corvallis where I received an EE degree in 1953. Following that, as a member of the Air Force Reserve Officers Training Corps, I spent two years as a research and development officer in New Mexico at the missile test range. After completing my Air Force assignment, I headed for California to enroll in the Stanford Graduate School of Business.

My first contact with HP was a summer job, between school years at Stanford, assembling microwave test equipment. HP looked like a nice size company (\$30 million in sales and 1,700 employees) with a good future, so after receiving my MBA in 1958 I was very pleased when I was offered a full-time job with the company.

I had a rich variety of assignments in my first few years with HP. Two that come to mind were working on long-range planning for the decade of the 1960's, and participating in a project to implement the acquisition by HP of eight of its independent marketing organizations to form the nucleus of the company's first direct sales force.

Later, I served as marketing manager for HP's first division—Microwave—and in 1963 was appointed general manager.

Over the next five years, the division expanded by a factor of three. In 1968, the Manufacturing Division was separated from Microwave, and those two—plus Santa Clara

Division and HPA (now Components Group)—were combined into the newly formed Electronic Products Group, of which I was named vice president and general manager. The other instrument divisions were added to the Group over the next two years, and then in 1974, EPG was reorganized into our present Group structure and I was appointed an executive vice president.

On the personal side, my wife, Rosemary, and I have known each other for a long time—in fact, we were in the same first grade class in Oregon. We were married while I was in the Air Force, and we have three children, all of whom will be in college next year.

Looking back over the past 20 years or so of HP history, the changes we have seen in the company are very dramatic. To give just three examples, sales have increased 40 times, employment has increased 20 times, and we now have more than 35 operating divisions. I've been very fortunate to have had a broad series of assignments during these years of growth and progress, and to have had the opportunity to work side by side with—and learn from—people at all levels of the organization. That learning process is not complete by any means, and in the months ahead I will be traveling around the company to meet with as many of you personally as possible.

HP has become a singular story in American business today. The unique leadership abilities of Dave and Bill have been fundamental in establishing the policies and objectives that underlie the growth in product scope and company size, and in developing the working environment that is a highly valued characteristic of our company. This year, for the first time in the 38-year history of HP, one of our founders will not be the president of the company. They have put in place, however, an outstanding team of people with the experience and enthusiasm to continue the traditions of HP on into the future. I feel confident that all of us working together can maintain HP's steady march toward becoming one of the world's preeminent technology companies.

Measuring up...



There it is, another team portrait mailed to the editor in hope of some published recognition — this one all the way from the YHP Yokohama sales office. Of course, the team name is worth some points. And — more points — they're obviously celebrating a victory.

Ah, but what a victory! It seems that the MEASURES had gone through five full seasons since they were organized without a single win or tie. Still, they never stopped trying. This year the spell was broken completely. They won their first game of 1977 — being celebrated here — and have since had all wins and one tie.

Accordingly, MEASURE is pleased to introduce the MEASURES. Standing from left are: *Kawahara — shortstop; Uemura — third base; Konno — first base; Kawashima — catcher; Ueda — pitcher; Noishiki — center; and Osaka — right field; front row from left are: Yamashita — second base; Miyamoto — manager; and Fukushima — left field.*

Measure

EDITOR
Gordon Brown

ASSOCIATE EDITOR
Dennis Cresswell

ART DIRECTOR
Tom Martin

GRAPHIC ASSISTANT
Teri McPheeters

MEASURE Correspondents — AMO, Karo Langford — APQ, Dick Anderson — AUSTRALASIA, Robb Scribner — AUCKLAND, Matt Whittier — BOISE, Arlie Stone — COLORADO SPRINGS, Beto Lopez — BRAZIL, Dempster, Joe Laska — CUPERTINO, Andy Boland — DALLAS/DFW, Ed Hale — HAWAIIAN SALES, Vince Macchia — FORT WORTH, Pam Peterson — GERMANY, Ralf Boller — HONG KONG, Brian Wright — HP FRANCE, Jacques Murgel — HP GERMANY, Hans-Joachim Heine — HP ITALY, Mike Pankratz — HP SINGAPORE, Dick Low — HP SA, Joseph Buchler — ILLINOIS, Ed Cassel — IOWA, Jim Trowe — MALAYSIA, Mark Malik — MANUFACTURING, Sheila Morrison — MARYSVILLE, Chuck Walker — MID WEST SALES, Joseph Palmer — NEER SALES, Roseanna Piers — NEW JERSEY, Bob Muggleston — SAN DIEGO, Bill Meade — SHERMAN OAKS, Robert Long — SANTA ROSA, Dave Cury — SCIENTIFIC INSTRUMENTS, Rich Egan — SOUTH AFRICA, Tene Seyer — SOUTHERN SALES, Anne Edith Varnell — STANFORD PARK, Joseph Engelhardt — UNITED KINGDOM, David Reed — WASHINGTON, Janet Orr — YHP, Meak Haras



1501 Page Mill Road, Palo Alto, California 94304