Where have we come from?
Where are we going?
And how do we propose to get there?
"at the end of 1972 we were still on a pay-as-you-go basis; one year later we were $110 million in debt..."

The dynamic relationship: Profit, growth, asset management...

President Bill Hewlett opened the 1974 Hewlett-Packard general management meeting in Carmel, California, by saying that the purpose of the meeting should be to find appropriate answers to those questions.

He first noted that "in the course of trying to understand what happened in 1973—particularly at the time we were considering plans to undertake a long-term debt of $100 million—various facts began to emerge.

"At the end of 1972 we were still clearly on our traditional pay-as-you-go basis, with debts offset by cash in hand. One year later we were $110 million in debt—quite a departure!

"The cause of this," he said, "was found in the very high levels of receivables (money owed to us by customers) and inventories that had grown during the year. In effect, we entered 1974 with a major problem in asset management. As we looked at these developments it became evident that a basic turnabout had occurred in the roles of profit and growth; we had lost sight of the basic pay-as-we-go objective.

"Therefore it is very important that the 81 managers at this meeting understand the dynamic relationship between profit, growth and asset management. In reducing expenditures because of our recent problems in asset management, I believe we have taken too much out of R&D and marketing. We need to get back to a more traditional balance in these areas that are so vital to our future. That, as I see it, is one of the main challenges you will take back from this meeting.

"I am convinced that we can solve these problems of asset management, and bring our growth and profits into line, build the plants and create the organizational structure we will need. But I am not so sure that we see a clear solution to the problem of building the management team. Management by objective presupposes that we will have an adequate supply of managers under development. The questions of where we obtain these people and how we train them represent what is probably the most challenging problem we face."

Principle of management: Get some action...

“I would agree with Bill that the problems he has outlined are the major ones facing us as we move ahead,” chairman Dave Packard said. “However, I would put it a little differently in saying that the problem is not just that of developing management capabilities at all levels but also whether the people here can carry on the company in the future as in the past.

“To that end I want to spend some time discussing principles of management. As Bill indicated, we did get slightly off track over the past few years: We introduced some products that were not ready for the market; we priced some of our new products too low; and we over valued inventories in several..."
specific cases at more than they were really worth.

"Some of our problem in these areas was caused by giving too much time to long-range planning and targeting and not enough to the day-to-day problems of operating our business. Some important things were overlooked by some of you people here. For example, it was only after the corporate management raised the question of inventories and accounts receivable last year that the people at the operating level began to do something about them.

"As a result of raising some serious questions about our performance in 1973, we have made good progress in the first half of 1974. Essentially, two things happened: shipments went up and expenses were cut, with significant effect on all areas.

"The point I want to make is that these results were a reaction not only to the targets that had been set but also to something else. After being made aware of the overall problem, every division really knuckled down to the task of improving profits. What this says is that we can't use financial targets and studies as the sole way of getting things done. We have to be alert to what is really going on in our business, and to communicate that information to all people in the company, and to get some action.

"In looking at these problems and at the other changes that are occurring in our business, we have felt a need to reflect them in our Corporate Objectives. Consequently we are revising two of the objectives extensively—the Profit and Customer objectives, and will make lesser changes in the other objectives. (Editor's note: the final text of the revised Objectives will be made available shortly, in MEASURE and in booklet form).

"Essentially, the changes in the first objective are a means of reemphasizing the key role of profits in meeting our other objectives, and here we need to stress that profit must be achieved today, and that our company profit is affected by what everyone does every day. In the customer objective, we want to bring out that marketing and selling is not just getting an order but also involves providing our customers service and support for the future. We have got to work more carefully to give customers the best solution to their problems, and to give them the feeling that they are working with one company, not a group of divisions and marketing teams.

"There is no question, the job of managing this company is getting more complex, more difficult and more important—because our business is becoming more complex and because it is affected by more and more outside influences and constraints of various
Get some action...

kinds. We don’t have the freedom we had a few years ago, and we are going to have to learn to live and deal with a changing world.

“These meetings are held for the purpose of examining our problems critically and constructively. In spite of that, I want you to know—and to tell the people in your organizations—that Bill and I are very proud of the people in this company and their outstanding overall performance.”

“. . . the problem is not just that of developing management capabilities at all levels but also whether the people here can carry on the company in the future as in the past.”

First-half performance ahead of target

Commenting on the success of the first six months of fiscal ‘74, executive vice president Ralph Lee said: “One of the things that has made it possible to do so well is that we’ve had a good order base to operate from. Our orders were $442 million for the first half—six percent ahead of target and 34 percent ahead of a year ago. That’s a terrific growth rate.

“International business is growing at a much faster rate than domestic. If you look further back—over the last twelve months—our growth rate is a little more than twenty percent. Domestic growth was only about six percent whereas international was substantially up—about 43 percent!”

Lee reviewed the performance of each product group in terms of orders during the first half, and compared the figures not only with the comparable period of last year, but with the target figures. In almost
every area of HP's business, the first-half
performance was ahead of target, and up
matically from last year. In terms of
shipments, the figures varied widely from
month to month but showed a growth rate
of about 33 percent per year.

In discussing the two related problems
of high accounts receivable (money owed
HP for products already delivered) and
inventory levels, Lee noted that a great
deal of attention is being focused on these
areas. He called the high inventory level
"a much more difficult problem than ac-
counts receivable," but said that the in-
crease has been halted. The further task
of bringing the inventories down to an ac-
ceptable level is one that many people in
the divisions are involved in.

Another way of looking at the same
problem, Lee said, is to look at our prod-
uct inventories in terms of the "turnover"
of goods in a year's time, which is derived
by dividing inventories by cost of sales.
Current figures show that HP turns over
its product inventory less than two times
per year, and that some other successful
companies show turnover rates almost
twice that high.

Lee discussed HP's capital expendi-
tures and borrowing position over the past
several years, noting that borrowing is
down due to higher profits and reduced
expenses.

One area in which increased invest-
ment is needed, according to Lee, is re-
search and development. R&D growth—21
percent over the past three years—has not
kept pace with growth in other areas of
the company, and it is important to keep
R&D activity at a high level, because
new products are the vital source of our
success.

He also reviewed the profit-sharing
figures of the past two years, which showed
a good percentage rate in 1972 and a sig-
nificant drop in '73. "We should make
every effort to get the profit-sharing up
around ten percent," he told the HP man-
agers. "Part of the reason it was down in
1973 is that in '72 we had many additional
employees producing who were not yet
eligible for profit-sharing. In 1973 they
were put on the profit-sharing plan—a
tremendous number of them—and this re-
duced the amount per person. We're do-
ing better now!"

Ed van Bronkhorst, vice
president-Finance, reported
on financial targets and
forecasts for the balance
of 1974.

"we should make every effort
to get profit sharing up..."
Meeting our objectives...

John Doyle, director of Corporate Development, presented projections of the company's growth and progress over the next few years. During his presentation, an interjection by Dave Packard summarized the importance of this type of planning. "In the next four years," Packard said, "HP will have to do as much in terms of products, plants and people as it has in the past thirty years. That's the challenge we face."

The meaning of that statement was brought out rather dramatically in Doyle's forecasts. He emphasized the necessity of long-range planning in the slow-responding areas of business, such as product strategies, site acquisition and building construction, management development and changes in the company's organizational structure.

Among the trends that Doyle forecast was a high level of capital expenditures—due in large part to the new facilities that will be needed. If profits continue to rise as they have, and receivables and inventories are better managed than before, we will be able to stay on a pay-as-we-go basis and cash shortages will not be a problem. Employment will probably increase more slowly and productivity will increase, according to Doyle.

Doyle also discussed asset management and its relationship to profit and growth—emphasizing the importance of keeping inventories and receivables under control if HP is to achieve its objectives.

Electronic Products: A very strong start...

In addressing the HP managers, John Young, vice president and general manager of EPG, reviewed the medium term outlook for all the Group's product areas. He reported that these forecasts from the division managers involved indicated good growth rates in orders for instruments and measuring systems, and even faster growth in components and civil engineering products.

"I feel our overall program is much improved," Young summarized. "We've had some fundamental problems in certain key product areas where a lot of hard work is beginning to pay off in improved margins. We also have some excellent opportunities to extend our business based on new measuring contributions."

Young also commented on the cashflow analyses that was a part of this year's planning task. He felt the Group learned a great deal about difficulties of defining and collecting data on our assets on a worldwide basis. These tools will be useful to management when perfected, but a number of areas remain to be worked out over the course of next year.

In commenting on product trends, saw a need to develop more complete so-
solutions to customer measuring problems, particularly by integrating computation with instrument functions and to develop new products for the rapidly growing digital markets. In talking about competition, he went on to say: "We are seeing a strengthening and gathering together of our competitors and the entry of new firms of a different caliber on an international basis. Their aggressive managements and perceptive strategies will cause us to do some careful thinking."

In discussing some of the other problems he has observed in field and factory coordination, Young concluded, "I don't see any problems we can't solve. I feel confident that, all working together, we can move this company ahead to be the finest technology company in the country."

"I don't think we should be afraid of growth; growth presents us with opportunities."

Bill Terry

**Data Products:**

**Growing a better HP...**

"One principal asset of the HP management group," said Bill Terry, vice president and general manager of Data Products Group, "is the spirit of constructive criticism, plus a willingness to listen to criticism and to be self-critical, when things go wrong. I don't think we should ever lose that spirit, because it is going to be a great help in attaining the many positive things that are ahead of us."

"Over the next three years we are going to have to hire, develop and train several thousand more managers—and since we're projecting to improve our overall performance, these managers will be better trained and better performers than the average for this group!"

"In doing this I don't think we should be afraid of growth. Growth presents us with opportunities, and if we do the job right beside just growing a bigger HP, we can make it an even better HP!"

Terry outlined some of the factors that will provide the opportunities:

"Applications of small computing machines in business, science and commerce are growing rapidly. The market here today is well in excess of one billion dollars a year among all companies. Data Systems has made substantial investments in R&D aimed at this market, and we expect to see some of the results of that investment during the coming year."

"For example, you only have to look at the many applications within Hewlett-Packard, such as the COMSYS communication system, with its several millions of dollars worth of hardware and software products, to get some idea of the potential for application of our computer products in other companies."

Along with the new 21MX computer series, Terry disclosed that Data Systems will introduce several other key contributions in the computer line next year.

He said that growth on a geographical basis will be pretty well balanced. "We think there are still great opportunities internationally, especially among our traditional customers."

Desktop calculators will also have some exciting new product additions. "More and more," said Terry, "we are moving into the application of these calculators as small systems."

"The traditional definitions of a "computer" and a "calculator" are becoming obsolete, and while this presents a substantial future management challenge, it is also one of HP's greatest strengths."

Discussing HP's pocket calculators, Terry indicated that "one big element in the growth of our orders is and will be the broadening of our distribution channels, specifically through our dealer program. By the end of this year we will have a very large network of bookstores and department stores around the world."

Crucial to the entire projection for HP Data Products, said Terry, are the "combination of very, very good products and having enough people, especially technical contributors and managers, to meet these challenges. The market opportunity is there, and the application of our digital technologies to the solution of people's problems represents a chance to do some real good."
Medical: Some important assumptions...

In looking at the future of HP's medical products, Dean Morton, vice president and general manager, Medical Products Group, said the projections assume that:

- The economic environment for health care as it affects our opportunities won't be significantly altered over the next few years.
- Our kind of technology will continue to be an important part of the solution on the world's health delivery and quality of care problems; and
- The regulatory environment won't detrimentally change the fundamentals of competition as we know it today and that while we will see increased bureaucratic procedures related to the production and marketing of medical devices we won't have the kind of rigid controls that diminish the rewards for innovation.

In summary, the projections show substantial growth for our medical products though not at the same high rate as over the past four years.

Our requirements for people and space show a related increase and will require a lot of management attention.

As regards our various product lines, patient monitoring will continue to be the most important in size, but newer lines such as perinatal, X-ray and respiratory will grow at a faster rate.

Areas such as cardiography and cardiovascular instrumentation will also increase significantly as planned new products and the computer systems that are part of these product lines gain acceptance by the medical community.

In R&D we will continue a high level of investment in our present fields of interest, with increased emphasis on new ways of applying HP technology to the practice of medicine. Within the application areas in which we are currently involved there are still great opportunities for us, and our projections assume no significant diversification efforts over the period of this plan.
Analytical:
Getting the job done...

Emery Rogers, general manager of the Analytical Products Group, reported that Avondale analytical instrumentation still represents the largest portion of the group's sales, and will continue to for some time. However, he also reported encouraging developments in other product areas.

The future of ESCA (Electron Spectroscopy for Chemical Analysis) produced at Scientific Instruments Division in Palo Alto, Rogers said, lies in finding new major applications. The techniques are being applied to many specialized production problems within HP that involve the study of surfaces. He feels that ESCA could prove to be a significant part of the analytical business if similar applications become widespread beyond HP.

The acquisition of Hupe & Busch has placed HP in a very good position in the liquid chromatography field, according to Rogers. At the recent trade show in Cleveland, he said, there seemed to be a competitive "scramble" among other manufacturers to get into LC. "The transient state of our entry into the LC business is over now, and we can really settle down and get the job done," he told his audience.

The Cleveland show was also significant for another reason--HP's introduction of new keyboard-type products in and for the group's basic line of gas chromatographs, giving these instruments a data processing capability. In addition, the Avondale Division has now standardized its production of chromatograph data systems, which has greatly added to their profitability. Rogers was enthusiastic about the growing market on the data processing side of the analytical business.

"we are putting a considerable investment behind some of our newer medical products lines..."
Learning to collect money...

When customers take longer and longer to pay their bills it's called an "accounts receivable" problem—and it soon adds up to a lot of money. The question is—how can HP accelerate collection of receivables without hurting sales?

Phil Scalzo, general manager of the Neely Western Sales Region, noted that the average number of days for "accounts receivable" rose sharply between 1970 and 1973, and has dropped back somewhat this year.

"One reason for the downturn," he said, "is the improved data we are receiving from corporate via the Heart system. This has enabled us to attack the problem in a number of ways.

"Our people have been asked to look at all accounts outstanding over 45 days. We have developed a staff of full time collectors whose job it is to phone such customers and ask for payment. In fact, the whole sales force is involved."

About half the problems they wrestle with arise from HP's own actions in the factory and the field. Factors here include billing errors, partial shipments and non-conforming procedures of various kinds. The other half results from the sheer reluctance of some customers to pay today if they can put it off.

"Some customers need very little incentive to hold back. Any error or incompleteness on our part is an excuse not to pay!"

According to Scalzo, the U.S. regions have found the government to be probably the best paying big customer—if the HP paperwork is correct. He noted that HP also has a number of good customers who call if they have not received an invoice within about two weeks after a shipment.

Scalzo recalled that his son, while en route to the beach, wondered what was keeping dad at home. Told about the receivables problem, he asked: "How much money do customers owe the company?" "$XXX million," his father replied. "And how much of that are you responsible for?" "$XX million," Phil answered. "Dad," suggested young Scalzo, "you'd better get ho!

"We are learning awfully fast how to collect money," Phil indicated, "even though sales and credit collection are often thought to be incompatible.'

Alan Bickell, director of Intercontinental Operations, said the international picture on receivables was quite different from the United States.

"By far the biggest part of our problem is the payment policies of customers," he said. "National attitudes and characteristics are at work here, with considerable variation from country to country. In turn, in the Intercon countries a few major customers represent the biggest percentage of receivables overdue beyond 90 days."

To attack the problem he said that Intercon had developed an action plan that:

- Set challenging goals for keeping receivables at or below a certain percentage of annualized shipments and reducing the percentage of overdue accounts.
- Dedicated all levels of management to achieving established goals.
- Improved the visibility of the total problem by breaking it down into categories and cases that people can understand, country by country.
- Brought clerical staffs and systems resources up to necessary strength.
- Attacked in a systematic way each cause of overdue payment on a case-by-case basis, focusing on the high payoff areas. Namely, clearing up HP internal problems and 90-day overdue accounts.

"each cost center manager must control his inventory; almost everyone has an impact on it."
Inventories—all of the in-process materials, parts, components and undelivered finished instruments—have risen sharply in the past two years both in volume and cost of financing. What can be done to reduce this burden without reducing production efficiencies?

Burt Dole, general manager of the Andover medical operations, said that:

"Even though 80 percent of our shipments are systems rather than unit instruments, our historical data tells us that we can keep our inventory levels at the corporate average, though large single orders can cause it to fluctuate above and below.

"In order to control inventory, we believe that a division should employ a computerized net requirements planner and a computerized run-book reallocation scheme. These control devices should be designed and implemented by the people in the manufacturing department who will be using them.

"The very great interdependence of instrument production-line schedules in the systems environment means that we should strive to hold our Gantt charts and once we have established them. This means having a large enough total backlog so that five to six weeks of instrument production can be of the 'make-to-order' nature.

"Lastly, intra-corporate OEM purchase should be controlled especially carefully, since most items have high dollar value. The supplying division must be worked with closely so that a desire to hold down OEM inventory in the receiving plant doesn't cause confusion and inventory buildup where the instruments are produced."

Ed Shideler, Loveland facility manager, described a situation quite different from that of a systems-oriented organization: a multi-division organization with common central facilities, complicated by the fact that three of the divisions are in Electronic Products Group and one is in Data Products.

"At one point when we first approached the inventory problem," said Ed, "it seemed natural that we ask the Inventory Control people to control the inventories. We learned quickly that they have only a limited role in actually influencing inventory levels. Since then we have gone to considerable lengths to analyze how long things remain in the production process, and to give detailed visibility to inventories. Each cost center manager must control his inventory. Almost everyone has an impact on it."

John Blokker, New Jersey Division manager, outlined the three steps he discovered that were "absolutely essential in gaining control of inventories by a small but almost entirely self-supporting division":

- Designed a materials planning system, one quite different from the standard ordering system.
- Gave responsibility for inventories to departments by establishing them as cost centers.
- Set guidelines so that people can work on a day-to-day basis in meeting their inventory objectives.

"Delivery of finished products has improved," he added, "because we are now getting our parts on time, rather than too soon or too late as used to happen."
Bruce Wholey, vice president-Manufacturing, summarized the role of his corporate group this way: "HP's strength to a large degree lies in the divisions. Our job is to make HP more than a simple addition of all divisions by providing some services and coordination necessary to all. For the divisions to transfer products and shift workloads efficiently there has to be a degree of commonality, which we help establish." The corporate group, he said, has been effective in helping divisions extend their international activities. Other areas of involvement: environmental control and safety activities, setting design standards, design and construction of facilities, overall capacity planning, coordination of capital equipment expenditures and other purchasing operations.

Marketing:
Time for thoughtful study...

Is the present structure of HP's marketing organization up to the challenge of $2-billion a year order level?

Bob Boniface, vice president-Marketing, took an analytical look at that big question.

He recalled thinking at the time the 1970 marketing reorganization was being considered that "we should design a structure that should last a reasonable period of time, have flexibility for future change, not require a total reorganization, and carry the company toward the $1-billion mark, which we are now approaching."

Objectives were established to that end, seven major channels of distribution were designated, and market charters were defined for the individual product divisions.

That reorganization has served the company very well, said Boniface. Under this new structure our business has more than doubled, and by next year will have tripled. Sales productivity in all disciplines has improved significantly, sales management capability was broadened tenfold, and today there is a higher degree of professionalism with greatly improved communications between the divisions and field sales.

On the other hand, the original market charters have become less well defined, due to a number of internal and external factors.
"Looking at our situation realistically," Chipman said, "we need to explore approaches that will enable us to capitalize more completely on our full product capability, and that will bridge the traditional distinction between our measurement and computational capabilities.

"We also need to ask ourselves whether the sales regions will become too large and complex, or whether there are some other more sophisticated approaches to serving our customers.

"Finally, is there a need to reassess our basic marketing objectives and test these for consistency with the revised corporate objectives? At this point I'd like to emphasize that I do not think there is any crisis at hand for HP. But now is the time for thoughtful study so we can be in the position we want to be in and not arrive there by default.

"The solution is much more involved than just combining two of our sales forces. Simply stated, we need to optimize our total advantages with the breadth of our product line and other corporate resources.

"We need to provide even stronger management and motivation for the field sales and service organization of over 25,000 people who now represent 21 percent of the HP population.

"Which brings me back to where we started in 1970: we need a structure which will again allow us to double in size and to reach the other objectives we have set."

Chief engineer Eb Rechtin outlined some of the rationale behind his activities since coming to HP last year. His efforts have been directed at helping develop engineering strategies in several areas: HP's place in the telecommunications industry, strengthening our capabilities in integrated circuits, improving our product assurance through engineering design, and increasing our company-wide software compatibility.

"...are there some other, more sophisticated approaches to serving our customers?"
Getting down to cases...

Six workshops provided the HP managers with an afternoon of lively discussions focusing on marketing, manufacturing, personnel, general management, finance, and international topics. Among their major observations...

Marketing participants saw a period of some change ahead for HP's marketing structure, particularly at the factory end. In developing their strategies, HP marketers should "always shoot for a long-term, mutually profitable relationship with customers."

Manufacturing men talked about inventories: products in the shipping "pipeline" have to be considered in estimating a division's rate of turnover of inventories; with the "crunch" on materials eased, now is the time to review relations with vendors.

Personnel workshops concluded that development of managers and the role of women were key areas for attention. In the former, discussion centered on "who needs the training, what kind, and should it be given by insiders or outsiders?" Concerning women, it was felt that HP has done well in the area of equal pay, but has a real need to recruit and encourage women for professional and management roles.

General management people centered on the theme of how to achieve a balance in managing a division. Once again, this raised the subject of management training. About long-range planning, they felt that the planning process sometimes seems to substitute for or precede basic direction setting, whereas the opposite should be the case.

Finance workshop people dug into the question of targeting: it continues to serve as HP's primary mechanism for goal setting and achieving, and permits our decentralized management and growth. It should not be a rigid script. But, should it be done once or twice a year?

International participants reviewed such problems as selecting the best international people for U.S. training, recruiting for multi-national roles, the "cultural shock" of too long or too many overseas assignments, international R&D benefits, and—how do you pass along the "HP way" to 2,000 new people in Asia?
Affirmative Action:

Where do we go from here?

What kind of effort is Hewlett-Packard making in the area of equal opportunity employment and affirmative action?
And how will the company be affected by the demands and the legislation on behalf of the "new" minorities?

Ray Wilbur, vice president-Personnel, took a detailed look at these important areas of social responsibility, particularly those that are, or are expected to become, requirements of U.S. law.

"Certainly as a company," he said, "we are improving our position in both hiring and internal development of minority people. Our employment of non-white people in the U.S. rose from 1,250—10 percent of U.S. employment—in 1969, to 3,132—or 16 percent—in 1974.

"However, government inspections of these programs are becoming more and more thorough and tough. The pressures for higher corporate goals, more recruiting of minorities and women, and especially more internal development of minority people and women are evident in each review by a government agency.

"Another group soon to be legislatively recognized even more directly are the physically handicapped. Under a new law we will soon have regulations protecting the physically handicapped and requiring affirmative action plans for their recruitment and development. This will be a tough one to work with, especially identifying who is officially handicapped.

"As it is now, we have special laws and executive orders to hire, train and develop without discrimination women, minorities, Vietnam veterans, people by national origin, people of various religions, physically handicapped, and older people.

"What are some of the things we can do to help in this situation?

"We should increase our internal upgrading efforts.

"At the same time we should improve and follow through on recruiting efforts for professional women and minority people. This includes greater use of cooperative programs with colleges, faculty exchange, and high school visits.

"In our recruiting we should now concentrate more on 'growing our own' by bringing in recent college graduates rather than acquiring experienced people.

"While undertaking these recruiting efforts we should be careful to match people's education and qualifications to their jobs. All openings should be publicized, and equal consideration assured to both men and women candidates.

"Follow through is very important: give more attention to career guidance. Managers should check pay reviews to assure that men and women are treated equally in pay for similar performance. Identify the growth potential of individuals and provide them with the opportunities to develop. And be sure to give attention to people in the basic production areas, to increase their opportunities to move up or into other areas.

"Why all this interest in positive action in these areas? Basically, these are the right and fair things to do as well as legally required. We also want to avoid challenges to our basic way of doing things, so we must keep our house in order.

"In one instance we were asked to change our long-standing policy of selection of new hires by the supervisor, and to control hiring and terminations through the employment office as a means of insuring equal treatment. Real affirmative action requires leadership and action. We have provided an Equal Opportunity Workshop to help managers and supervisors recognize possible prejudices and to help them in making decisions in this area of their responsibilities."