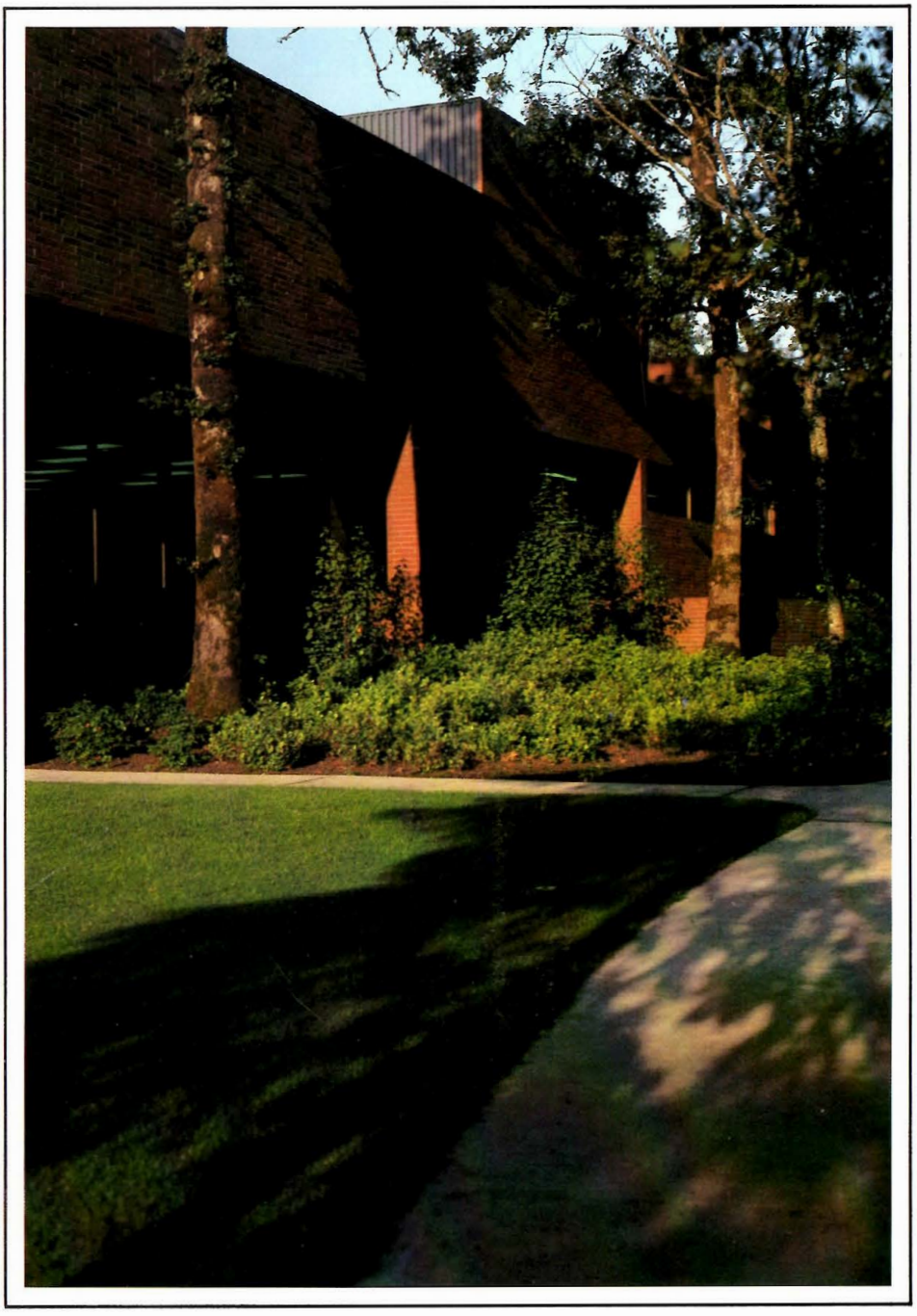


Annual Report
32nd Year
May 27, 1978

COVER — (Front, color) Home of our Information Display Group is this 358,000-square-foot building at Wilsonville. (Back, color) Views of our headquarters, the 300-acre Tektronix Industrial Park at Beaverton. Meanwhile, construction continues that will add over one million square feet.

Scramble

It was a year of scrambling—and ultimately failing—to keep up with the very high order rate. Demand outran our capacity; there was just no way to recruit, hire, train and equip enough people.

Sales were up 32 per cent, earnings 29 per cent, orders 27 per cent. You'll find more big numbers like those on page 5.

It's hard to grow so very fast and be tidy about it; growth causes its own set of problems. So does year after year of success, which brings with it a new corporate standard of living; the accompanying expense levels must be very carefully watched. The good news and bad news about growing and succeeding begins on page 7.

This was a whopper year for us, one of unreasonable demands very well met. A great deal of the credit goes to the men and women employees who share the job of managing Tektronix—a hard, challenging and often unsung job. It's time they were bragged-up a little.

They did superbly.

It was handy, in early Tek annual reports describing our products, to include a glossary so lay folks could follow along. This year's report, discussing Tektronix management, could use something like that.

Take the words "manager" (or "management") and "employee." As commonly used in industry, they're misleading, and imply something Tek has long challenged—that managers are not employees. They are. We all work here.

(Precise wording would probably be "manager" and "non-manager." But think how contrived: "The Metals manager meets with his non-managers . . ." "Photo shows a group of non-managers playing volleyball . . .")

So this report uses the standard terms. But we don't like them.

We've never had a facilities expansion like the present one, which will add over 1 million square feet of building space. An update on facilities, and on markets, educational activity and product development starts on page 11.

The second half of the narrative talks about Tek's style of managing. It's unique, complex—and often misread. Our strong concern for employees gets mistaken for everything from socialism to paternalism.

The historic roots of that style are described beginning on page 19. Our major corporate values, that affect our approach to management, are summarized starting on page 27. Then, with a deep breath, the report essays to distill the basic characteristics of that style—a style that, our long successful history indicates, is professional management in the truest sense.

The final section lets you in on a critical issue facing Tek: External pressures for increased controls colliding with our long-time emphasis on individual judgment. Page 32.

However that issue is resolved, it will make subject matter for annual reports for years to come.

Tektronix 1978 Financial Highlights

The accounting year is the 52 or 53 weeks ending the last Saturday in May.

1977		1978		Increase		
$454,958,000	100%	$598,886,000	100%	$143,928,000	32%	**RECEIVED BY THE COMPANY** For sale or rent of products
356,289,000	78%	470,377,000	79%	114,088,000	32%	TEST AND MEASUREMENT
98,669,000	22%	128,509,000	21%	29,840,000	30%	INFORMATION DISPLAY
410,987,000	**90%**	**542,040,000**	**91%**	**131,053,000**	**32%**	**RELATED COSTS AND EXPENSES**
143,191,000	31%	194,018,000	33%	50,827,000	35%	TO OUTSIDE SOURCES To pay for raw materials, purchased parts, rent, utilities, insurance, advertising, interest and other business expenses.
218,564,000	48%	288,997,000	48%	70,433,000	32%	FOR EMPLOYEES To pay the men and women who design, make, sell, and service our products—including profit share, commissions, employee benefits and payroll taxes.
12,781,000	3%	15,294,000	3%	2,513,000	20%	FOR USE OF FACILITIES OWNED To provide for depreciation in value of buildings, machinery and furniture resulting from use, wear and age, mostly computed by accelerated depreciation.
36,451,000	8%	43,731,000	7%	7,280,000	20%	FOR TAXES To pay U.S., foreign, state and local taxes.
43,971,000	**10%**	**56,846,000**	**9%**	**12,875,000**	**29%**	**RESULTING IN EARNINGS** Reinvested in expansion of the business and for payment of dividends.
$2.49		**$3.19**		**70¢**	**28%**	**EARNINGS PER SHARE**
513,000,000		**650,000,000**		**137,000,000**	**27%**	**ORDERS RECEIVED**

1977	1978	Increase (Decrease)	
$310,245,000	$357,704,000	$47,459,000	Current Assets
84,277,000	107,556,000	23,279,000	Current Liabilities
225,968,000	250,148,000	24,180,000	Working Capital
95,375,000	119,533,000	24,158,000	Facilities—Net
9,708,000	13,893,000	4,185,000	Long-Term Assets
56,929,000	56,878,000	(51,000)	Long-Term Liabilities
274,122,000	326,696,000	52,574,000	Shareowners' Equity
128,000,000	179,000,000	51,000,000	Unfilled Customers' Orders
14,637	19,147	4,510	Number of Employees at Year End
17,675,000	17,913,000	238,000	Year-end Shares Outstanding

J.B. Hangs in There

Cartoonists keep getting laughs from their funny drawings depicting Management: The bloated tycoon sits in his equivalently overstuffed office, into and out of which invertebrate underlings tippytoe and grovel. He has no name, just initials, usually J.B. He is, above all, an autocrat whose pudgy fingers conceal an iron hand. The captions vary, but you've all seen the cartoons.

Tektronix managers (and probably those of most other companies) would be hard put to match that image with real life. But, outside the business world, it seems likely that the cartoon is seen as reality, if a tad exaggerated; J.B. is seen *as* Management.

But then, why shouldn't he be? For US industry, despite decades of hand-wringing about the bum rap it feels it's being given — in the press, by government, in classrooms — has still failed to come up with an effective counter-image. (Nor have any such images sprung up spontaneously; unlike most human callings, the profession of management has failed to generate a single folk hero.)

Business has put a lot of effort toward changing its image as a callous, manipulative profiteer. That effort has ranged from economic-education programs to increased community involvement to actual major changes in corporate goals. None of it seems to have worked worth a hoot; public attitudes toward Business are, if anything, going to pot faster than ever.

It may be that the wrong approach is being used: That is, trying to set up a counter-stereotype; one that seems to say, "You have it all wrong, folks; what Business *really* is, is humane, altruistic, aware (yes, even lovable), and a major cause of beneficial social change."

Are people buying that good-guy image? Surveys say no. Instead, public and governmental pressures are growing — to restrict profits, limit the range of corporate behavior, and so on.

If there's ever to be understanding in this area, it probably won't come by trying to dislodge one stereotype (a pretty popular if ratty one) with another. Understanding will have to come about in the same way it has slowly taken place in race relations. First comes the recognition that not all green people are the same; second, the realization that you like some better than others.

So, Step One in understanding business enterprise may be to realize that companies are not all alike, but differ in many, many ways. A very important one is the way in which they're managed.

Funny, isn't it, that companies of such a wide variety come across on paper sounding so much alike?

Somebody or Other's Law gives a clue: No one wants to be average, yet everyone wants to be normal.

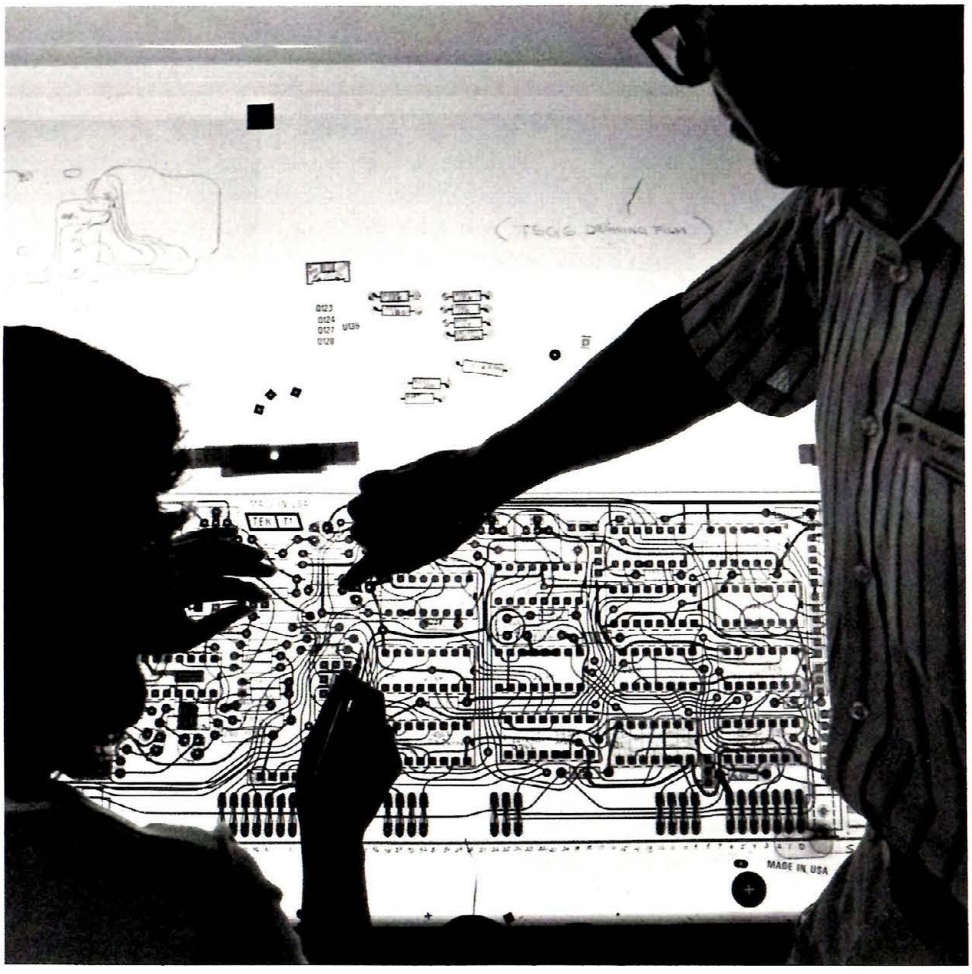
A business practice smacking of abnormality may well make an investor reconsider. On the other hand, an "average" company sounds sort of blaah. So

most annual reports wind up with the same predictable theme: Reassurance that the Company (1) does all the normal things but (2) does them in an above-average way.

In making the point of normalcy, it helps a whole lot to overlook all the things that don't fit—the multitude of corporate quirks and unique behavior patterns that just happen to be there. Trouble is, they're often the very traits that might have conveyed the distinct personality of the organization. So you can't win for losing.

Tek is not an average company. In a lot of ways it's not a normal one, either, but one that has often forsaken the accepted way and found its own path to practices, policies and ways of life that seem to fit us best here.

Our report this year, which deals in part with Tektronix' management style, will continue to plug away at describing the uniquenesses of our organization —an organization who, this year, once again, did well.



Keeping Up the Good Work

This year, the news that a German firm plans a plant in Portland that may employ 500 people got top-level municipal welcome and a lot of headlines.

This year, Tektronix added 3,719 jobs to its Portland-area payroll.

One way to assess company performance is by its economic impact on the community. By that criterion, this has been some kind of successful year.

But Tek management, self-critical lot that they are, make haste to trot out some other points. Some allow as how one year (or even a string of years) is too short a time in which to measure success. Others insist on comparing what we achieved against what we *might* have achieved with a little more this or that. You never win that one, of course.

We're proud of our year. We're *not* very pleased with its second half, however; lumping-up of much of the year's expenditure in the third and fourth quarters cut into earnings growth for those two periods. But not for the year as a whole.

The fourth period was a squeaker; still, it ran our string of successive "up" quarters to 26—up compared with the same quarter the year before. Not a lot of companies can match that record.

The financial results were all positive: Sales, orders and earnings moved once again to new highs.

Sales were up 32 per cent from those of a year earlier, moving to $599 million from $455 million. The *international portion* increased 28 per cent, to $217 million from $170 million; the *US segment*, by 34 per cent, to $381 million from $285 million.

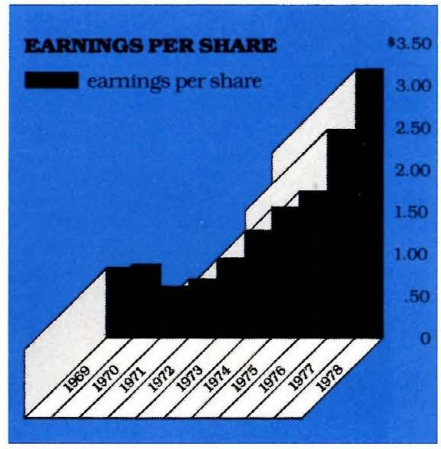
Sales of test and measurement products increased 32 per cent, to $470 million from $356 million. They accounted for 79 per cent of total Tektronix business.

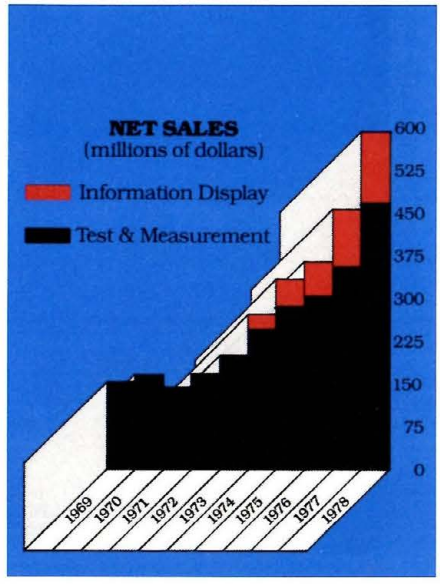
Information Display sales showed a 30 per cent increase, reaching $129 million compared with $99 million. This table shows the IDG and Test and Measurement share of recent years' net sales:

	Year Ended			
	May 31, 1975	**May 29, 1976**	**May 28, 1977**	**May 27, 1978**
Test and Measurement Products	$289,375,000 *86%*	303,021,000 *83%*	356,289,000 *78%*	470,377,000 *79%*
Information Display Products	$ 47,270,000 *14%*	63,624,000 *17%*	98,669,000 *22%*	128,509,000 *21%*

Earnings were up 29 per cent, moving to $57 million compared with $44 million the year before. *Earnings per share* were $3.19, up from $2.49.

A complex mishmash of factors, most of them outside our control, causes





yearly changes in our effective tax rate. This year, like last, they worked in our favor; but they don't always.

Our *pre-tax earnings* (income before income tax) actually increased only 27 per cent. Put that "only" in quotes.

Incoming orders suggest continued business momentum. They totaled $650 million, compared with $513 million the year before, an increase of 27 per cent. Despite our scrambling to keep up with demand, *unfilled orders* increased to $179 million from $128 million.

For sheer impact, the year's most significant figure may have been the growth in our work force. Employment went up 31 per cent, to 19,147 from 14,637.

In the US, we made a net gain of 4,131 employees, up 34 per cent; to increase that much, we hired over 6,700 new people stateside.

Over the past *two* years, US employment grew by 5,680, or 53 per cent. Despite our historic low turnover (3,394 of our 6,355 employees 10 years ago still remain, and 529 of the 1,700 here 20 years ago), about half our US employees now have been with us less than two years. If that fact doesn't give you pause, it does us.

Considering the dilution of employee experience, productivity held up well. Our 29 per cent increase in earnings wasn't far below our 32 per cent increase in sales.

Growing Pains and Strains

It's great to grow. But growing so fast is tough on a company, jampacking its facilities, drawing-down its financial reservoir—and putting to a stern test its approach to management. Such growth intensifies some old problems, creates some new ones and, in the hurly-burly of it all, blurs some we'd a lot rather be able to see more clearly.

Management must deal with several concerns:

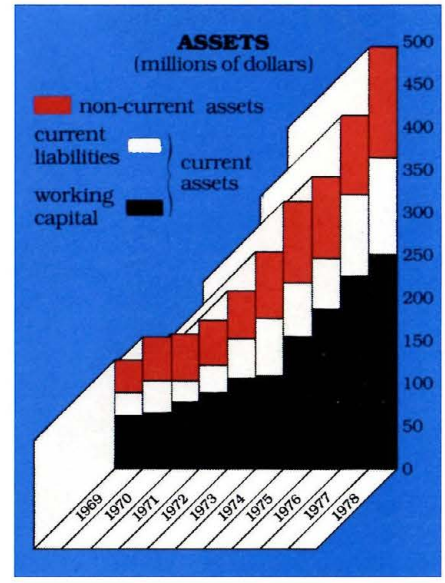
- One is *just plain size.* It may not be true that big companies have different problems from small companies; but they sure have more of the same ones. Certainly fast growth strains communications lines, and lowers the visibility of all that's going on.
- Second is *work-force dilution.* We've a lot of brand-new people. Tek's cultural heritage (values and attitudes) has long been considered critical to our success. Unlike many job skills, values can be assimilated only through a fairly slow distillation.

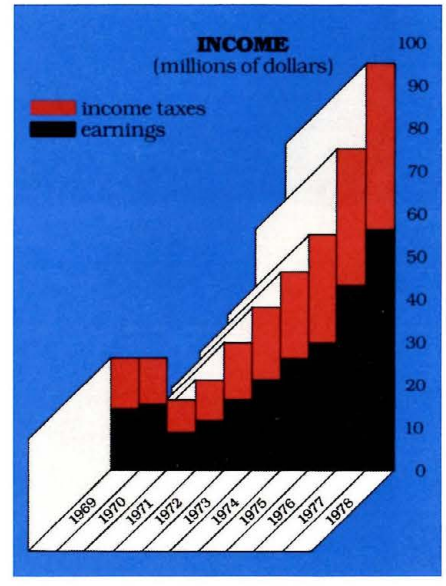
An additional dilutant is *geographic spread*—now into three major Oregon industrial parks; what will be our first plant in the state of Washington, and just about all the rentable, leasable space in the neighborhood. Things get strung out.

- Another concern is *overshoot.* Many new hires are untrained, low in output. They'll grow productive; that's good. But if increased productivity happened to coincide with slower growth in the order rate (and attrition didn't offset it), you could soon find yourself producing more than you sell.

This swing can happen fast; on the other hand, it needn't happen at all. For it *not* to occur requires management skill and some luck, to hire just the right number. What *is* that number? The books don't say.

- Then there's the cost of hiring, housing and equipping all the new people, a depressant on earnings. And it thins out the employee profit share, with more people slicing up the PS pie.
- And, if it takes some doing to add 31 per cent to the work force and do it efficiently, consider what it requires to similarly increase the number of managers. You may live for a while with untrained privates, but you'd better not have many untrained non-coms and officers. With our long history of promoting from within, having enough new managers ready is a major challenge.





APPLYING THE BRAKES ON THE ROAD TO EUPHORIA

Before you repent, the little kid concluded from his first Sunday School lesson, you first gotta sin. It seems to be just about that hard to be frugal without first having been poor.

Austerity is said to be a stern teacher. But it's been an absent one at Tek for six years. Prosperity has broken out all over, and fiscal restraint — Yankee virtue though it is—grows rusty without practice.

The past year's expenses were nearly on target; but the *pattern* of spending

was disappointing, increasing in the third quarter and bulging in the fourth, to squash earnings. Our first pass at the coming year's operating-area profit plans reflected a continuation of that higher expense level: They totaled more money than we can prudently commit next year—*despite* expected high sales.

"With our seven years of continued achievement," President Earl Wantland comments, "there's an understandable kind of euphoria that lets people rationalize marginal things more than they ought. This can't help but make performance drop. If that drop were to occur on a broad scale, we'd be in trouble.

"We won't *let* it happen."

The profit plans have been given back to the managers for a sober second look—and a third, etc. if needed.

Like putting toothpaste back into the tube, it's hard to undo many spending decisions, once they're made. You can't easily unbuild a building; it's costly to dismantle an elaborate production process — and far harder to remove an employee than add one. Decisions, even those made in the hubbub of fast growth, need still to be balanced ones.

The lurking danger is suboptimization — meeting a short-term problem or localized goal, and losing sight of the effect of that decision on the overall organization.

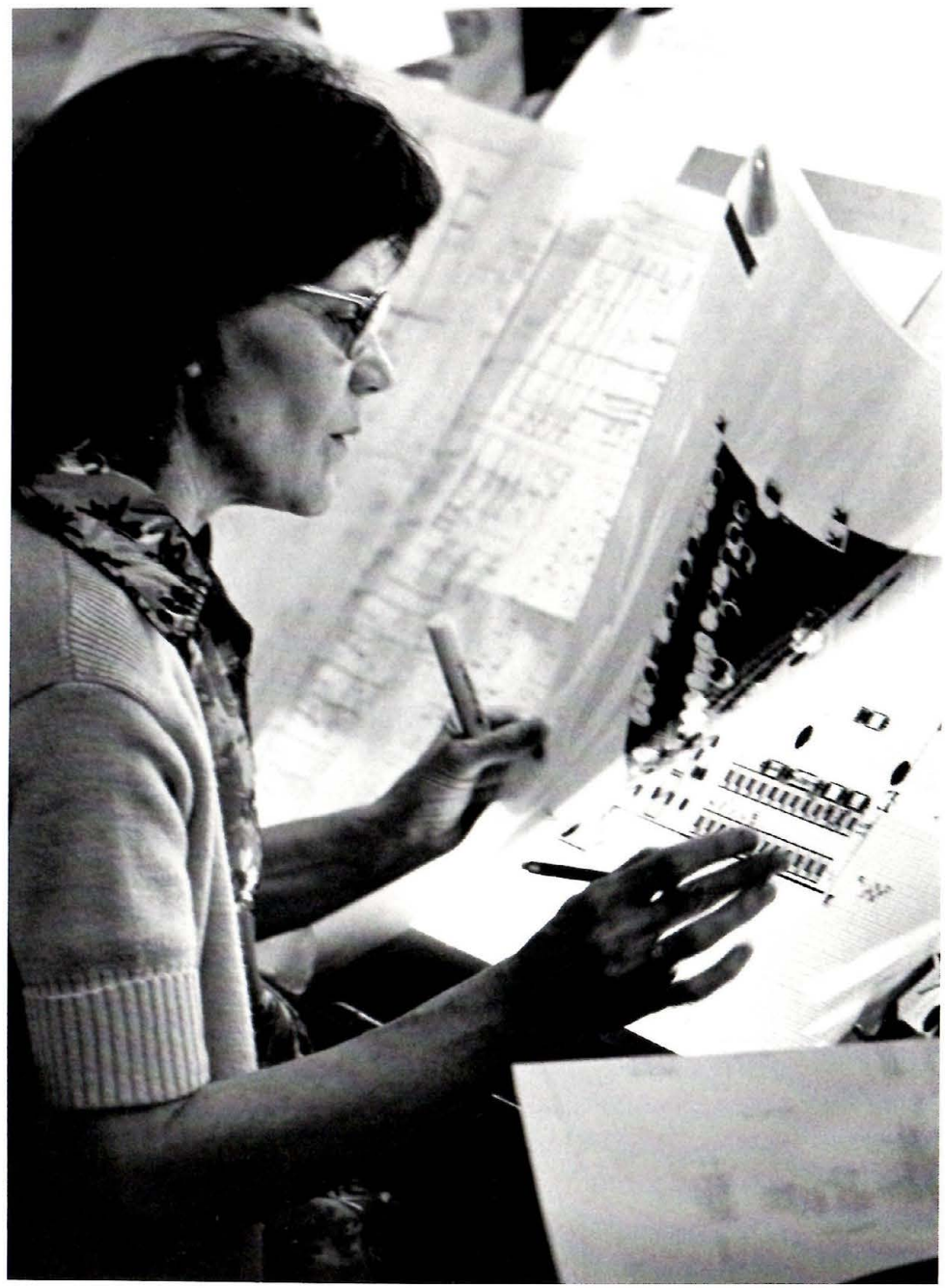
Tek is fortunate to have a built-in check on suboptimizing: Profit sharing. Because a manager's decision affects *all* employees' paychecks, it becomes fair game for challenges from peer, subordinate, boss or Minnie from the next department. We thus have some brakes on marginal or less-than-well-thought-out spending.

(Not that employees have veto power, any more than truculent taxpayers directly control government spending. But there *is* a rough analogy.)

A slowdown in Tek's growth rate wouldn't be all bad news. We could take a breather, assimilate all our new people, finish our buildings — and get a new perspective on spending that's difficult in the rarefied air of success.

Growth is a net plus, energizing and animating an organization. And you can't argue with success, either. But things going too well, too long, too fast will test our ability to manage the organization, by threatening undisciplined growth and suboptimized goals.

It's a tough challenge; it will take tough managing to handle it.



Tektronix Update

Last year's report contained a nutshell summary of company status. Because our growth has changed a lot of that information, a brief update will probably be helpful to you.

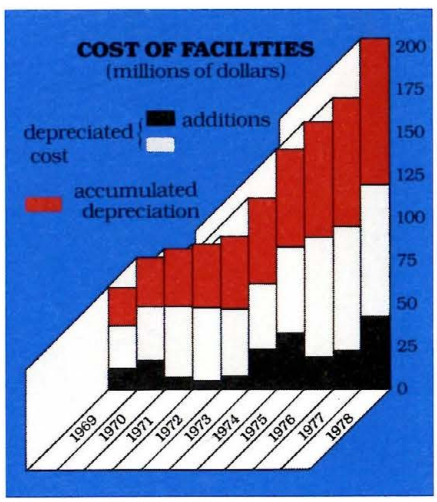
The most obvious change is in space. The largest single facilities expansion in our history, construction begun or completed this year will add over one million square feet to our owned US facilities.

Buildings are going up just about everywhere. Two major projects in our Beaverton industrial park have received board approval and are under way: A 200,000-square-foot building to house microelectronic circuitry development and production, and a 276,000-square-foot automated warehouse.

Three miles to the west, on our Walker Road tract, construction continues on a two-level 214,000-square-foot general-purpose building, planned for occupancy in early 1979. In our Wilsonville industrial park, occupied by the Information Display group, a 229,000-square-foot general-purpose building has been started.

This year, we added 67,000 square feet to the Walker Road building, plus a 10,000-square-foot cafeteria; completed a 29,000-square-foot chemical storage structure at Beaverton; and finished a 103,000-square-foot addition at Wilsonville.

The Grass Valley Group, our California subsidiary, completed a 5,000-square-foot structure. For a while it will house engineering activities, displaced by a fire this year; then be used for storage.



FACILITIES

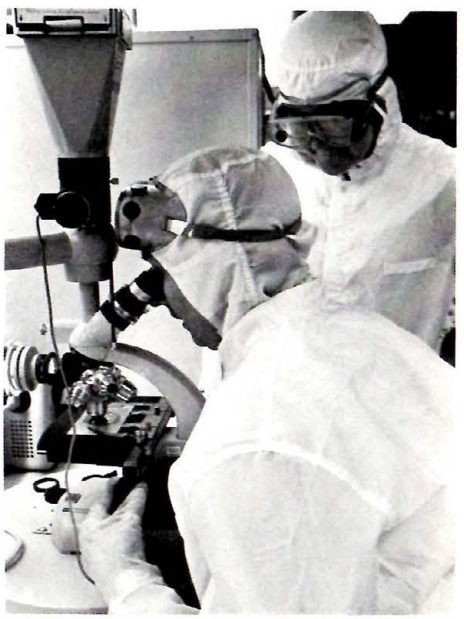
Our 300-acre park at Beaverton now contains 25 buildings comprising about 2.3 million square feet. The 38-acre tract along Walker Road now has 190,000 square feet of space in its expanded building.

The 250-acre Wilsonville park has enlarged its building to 358,000 square feet.

Outside Oregon, Tek owns seven field offices, containing service centers and comprising 160,000 square feet. We lease another 214,000 square feet, for a total of 374,000 square feet. The Grass Valley Group has 57,000 square feet of buildings.

In 14 foreign countries, Tek and subsidiaries own 390,000 square feet and lease 190,000 square feet. Worldwide, the manufacturing, engineering, warehousing and related space owned by the company totals about 3.4 million square feet.

Overseas manufacturing plants are situated in two locations near London; on the English Channel Isle of Guernsey; at Heerenveen, The Netherlands; and in Tokyo and Gotemba, both occupied by SONY/Tektronix, our equally owned Japanese affiliate.



This spring we leased a major facility (138,000 square feet) in Vancouver, Wash., that will house parts of our components operation.

MARKETS

Quick — name an area of human endeavor. You've almost certainly hit a Tek market. Our products figure in the research, design, manufacture or testing of most things.

Our markets, in science, industry and education, are (in order of contribution to our total sales):

Electronic and electrical equipment, about a quarter of our business. This category includes makers of electric motors, industrial controls, radio and television sets, telephone equipment and radar systems.

The computer industry, also around a quarter of our sales.

US, state and local government, close to 10 per cent of Tektronix business. They buy our standard commercial products.

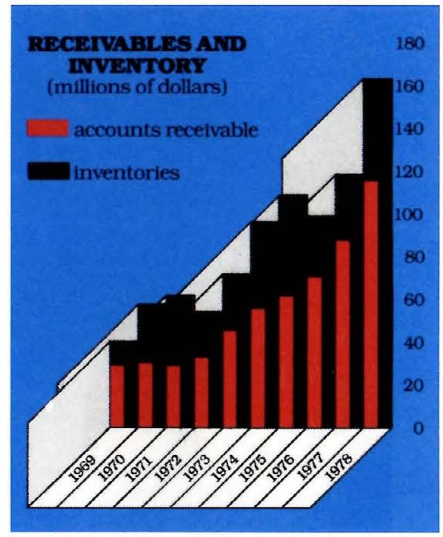
Education, also representing about 10 per cent — in medical schools, vocational/ technical institutions, graduate investigative labs — and increasing classroom use, caused by more and more use of computers in schools.

Broadcast television and other TV, 6 to 7 per cent;

The instrumentation industry — companies like us: Over 6 per cent.

Our other sales are widely spread. Typical customers are industries such as petroleum, chemicals, transportation, printing and publishing, and medicine.

Our products are sold in most countries. Primary foreign markets are Germany, France, the United Kingdom and Japan, followed by Canada, Australia, Switzerland, The Netherlands and Sweden.



PRODUCT DEVELOPMENT

Tektronix' investment in engineering, research and development, not including profit share, is about 8.3 per cent of revenues. Roughly 10 per cent of our employees are in those areas; about a third of them have degrees in either engineering or science.

So that neither our technological development nor product delivery will founder on lack of components that meet our specialized needs and high quality standards, we've taken to producing a large number of our own.

The big plus of such great vertical integration is that it lets us tailor not only the components to the instrument but also the instrument to the components, to achieve optimum performance.

We produce our own CRTs (other than TV-type raster-scan tubes for one Information Display product line), some semiconductors, integrated circuits, transformers, chassis and cabinets, ceramic hybrid circuits, ceramic CRT envelopes, etched circuitry, potentiometers, switches, precision capacitors and resistors, inductors, relays and oscillators, coaxial cables and a wide array of plastic parts. We supply many of these parts to our overseas manufacturing plants also.

If you read our earlier annual reports, you'll recall they used to explain in some detail how individual new products worked, and gave some idea of

uses and potential markets of each. Recent reports haven't carried this kind of explanation.

There's a reason: Our product line is now so broad that the effect of all the new products introduced in any given year might be only 5 per cent of total sales—and that of any *single* one maybe only 1 per cent. Devoting a lot of space to specific instruments might easily lead the reader to an exaggerated idea of their market impact.

Tek's reputation began with cathode-ray oscilloscopes, but doesn't rest there. However, the scope, the most common and probably most broadly useful electronic instrument, remains our major product. It enables study of electrical events or a wide variety of other phenomena (heat, sound, pressure, strain, velocity, nuclear events and biochemical changes), by displaying their waveforms for study and analysis. The waveform is a graph written by a focused electron beam on the sensitive phosphor screen of the scope's cathode-ray tube (CRT).

Scopes range from "mini" or handheld to benchtop size. Some are self-contained; others vary their performance by accepting a number of Tek-made plug-in units, including multimeters and counters. Some "intelligent" models are coupled to computers for additional analysis of waveform information. Some scopes have storage CRTs, that can retain the waveform after the event it depicts has ceased.

Scopes vary also in bandwidth, sensitivity, price and other features.

Test and measurement products also include modular plug-in instrument systems; spectrum analyzers, which allow analysis of complex signals by separating them into their component frequencies; pulse generators; amplifiers; logic analyzers; digital testers; microprocessor development aids; cable testers; power supplies, and physiological monitors. Tek also produces a variety of accessories, including probes, attenuators and waveform cameras.

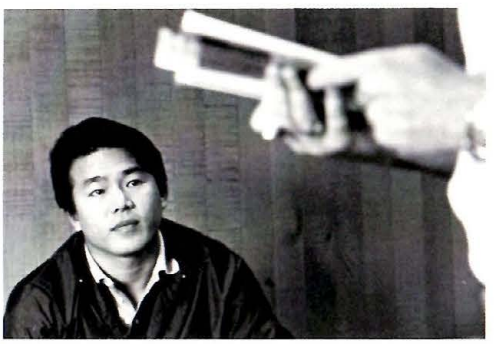
Specialized products for use in the television industry are waveform and picture monitors, signal generators and vectorscopes — all of which test and display the quality of video transmission — and the products of The Grass Valley Group, Inc., our California subsidiary, which manufactures production and routing switchers and special-effects systems. Both Tektronix and Grass Valley television products are the ranking ones in this market.

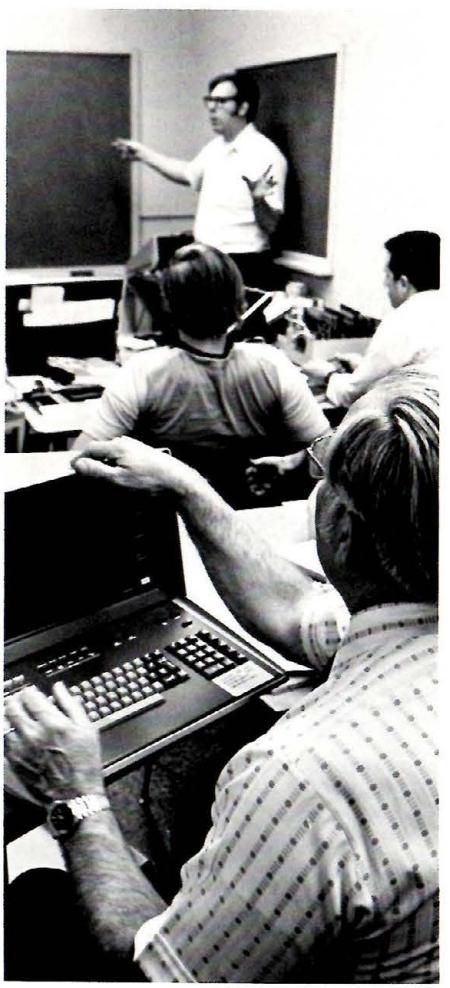
Information-display products include graphic computer terminals, that provide a CRT display of not only words and numbers but also maps, charts, diagrams and other pictorial content; graphic computing systems, which can function as stand-alone personal desktop computers or interact with a host computer; hard-copy units, which make permanent paper copies of the CRT screen contents; display monitors, and digital plotters.

Most of these terminals, monitors and computing systems use CRTs like those in a storage scope, only larger — now as big as 25 inches diagonally — enabling retention of the images after they've been written only one time. Our storage tube remains a unique competitive feature.

SELF-RENEWAL

Very nearly one out of every two Tek US employees completed some educational activity this year that was sponsored or supported by Tektronix.





Our education program continues to expand and innovate; it may be there's nothing like it in industry. Courses on our own "campus" range all the way up to college-degree-granting programs taught by instructors from local colleges and universities as well as from Tek.

In all, 6,872 employees completed 13,702 courses. That represents 47 per cent of our average US employment during the year.

Tektronix' own extensive in-house curriculum offered about 190 classes each term (except 55 in summer), ranging from technical and job-related skills training to general improvement. Student fees range from $5 to $10, plus cost of any books.

Our cooperative college-degree programs had 630 participants this year, and 27 graduates. If job-related, these programs carry 100 per cent tuition refund; even if not, 50 per cent support:

- *Bachelor of science, electrical engineering,* from University of Portland: One graduate (six to date), with 182 Tek participants.
- *Master of science, electrical engineering,* from Oregon State University: Five graduates (eight to date), 112 students this year, almost all 100 per cent Tek-supported.
- *Bachelor of business administration,* U of P, new this year: Sixty-two participants.
- *Master of business administration,* U of P: Twenty graduates (87 to date), 116 participants this year.
- A management/supervisory development program, which will result in a two-year degree from Portland Community College, had its first graduate. There were 167 participants this year.

Employees completed 2,016 courses in local institutions, for which Tek refunded $149,332 in tuition; plus 1,142 programmed-instruction classes.

Supplementing tuition refund in the field, seven Tek courses were taught there this year. New is a pre-supervisory development program. It had 56 participants.

Also new is an electronic technician training program, conducted on company hours by nine fulltime instructors. In cooperation with PCC, a class has been set up for beginning technicians; other PCC cooperative programs include one for maintenance technicians and one that will lead to a software technician degree.

A metals-machine operators program, heavily weighted toward women and minority participants, began this year. Students attend fulltime for eight weeks, to gain the skills to apply for jobs in Tek's various metal shops. Four groups have completed; half the graduates now have such jobs.

VICE-PRESIDENT APPOINTMENT

John L. Landis, 46, was appointed vice-president by the board of directors April 28. At that time he also assumed the position of International Operations manager, responsible for sales, marketing and manufacturing outside the US.

He'll direct the activities of our four foreign manufacturing facilities—one in England, one on the Channel Isle of Guernsey, one in The Netherlands and one in Japan—and sales and service organizations in 64 foreign countries.

John joined Tek in 1973. Earlier responsibilities were those of European marketing manager; Western region manager for our Measurement Products division, and, from January of this year until April, US sales manager.

TEKTRONIX VS. U.S.:

Like the "Daily Chuckle," which you can always count on finding tucked into some cranny of the morning paper's page 1, our "Yearly Briefing" (on our 17-year-old lawsuit against the US Government in the Court of Claims) has had its spot in every annual report.

This year, after hearing arguments from both sides, the Court entered a judgment in our favor. The Government moved for a rehearing; the Court denied the motion.

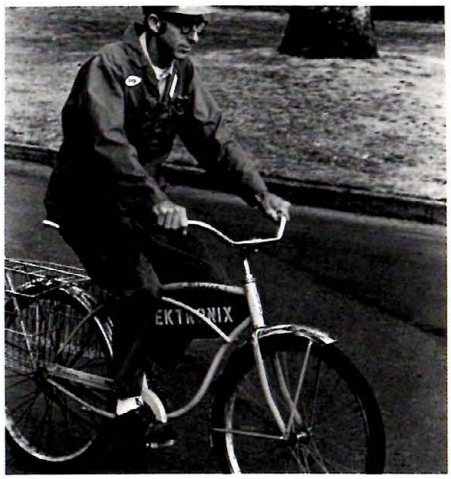
As diehard fans of patent litigation will recall, we filed the suit back in 1961, when three Government contractors infringed eight of our patents; won it on the patent-validity and infringement aspects in 1971, and have been going through the accounting phase ever since, to determine the amount of damage.

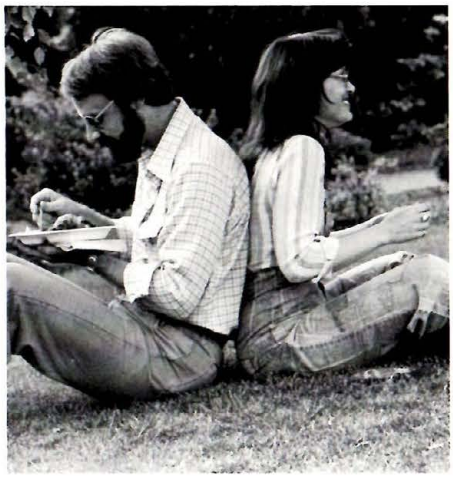
It is by now "ancient litigation." The Court of Claims itself made that editorial comment in this year's decision. It even expressed its "desire to expedite" the whole thing.

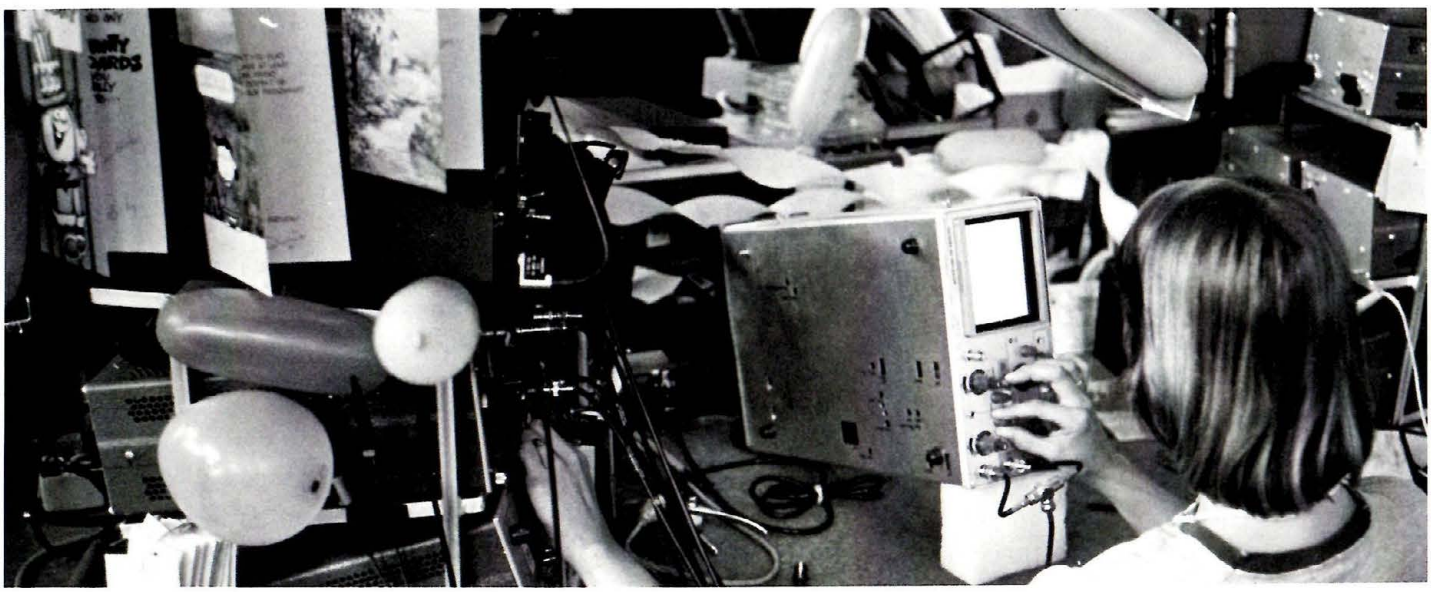
We've had a desire to expedite it, too, for 17 years now. The Government, however, hints that *it* may have the desire to trundle the ancient litigation up to the US Supreme Court.

If they so appeal, that Court may, through writ of certiorari, agree to consider the matter. If it refuses, the Government will have exhausted all legal recourse and, at long last, reached the end of the line.

We'll let you know if anything like that happens.







ROOTS: Then, the Bending of the Twig

Those Tek visitors who equate the trappings of management with the existence of management tend to snap-judge that the whole place here is rattling around loose.

They don't see any executive offices, any executive *any*thing — from dress code to reserved parking spaces. (The only discernible management "perk" is a modest lunchroom up behind the Technical Center kitchen. Managers who choose to eat there pay slightly higher prices than they would in the adjacent employee cafeteria.) There are no time clocks or whistles, gates, fences or guards. We've never published an organizational chart. Prohibitive signs are few, mostly restricted to safety warnings. We have no board room. Our major 300-acre industrial park has no attention-getting signs.

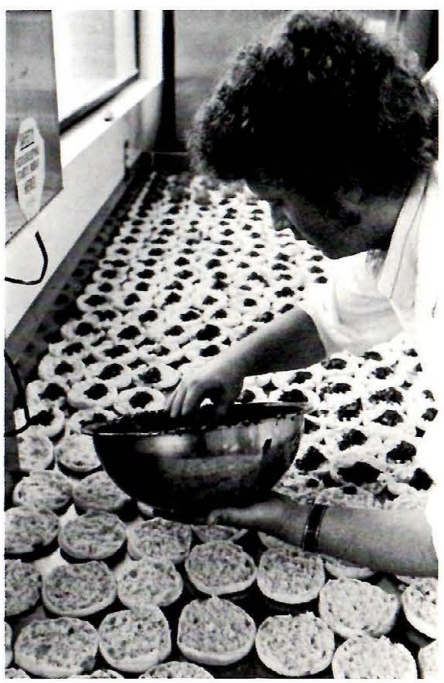
One guest surmised that Tek must be managed at night, and in secret.

There's a loose-jointed Pacific Northwest feel to the place. Not surprisingly, although highly coincidental, most of our corporate management (both founders, president, treasurer and two of our five group vice-presidents) were born in Oregon — hailing from Portland and from the forest hamlets of Gates and Bridge.

Our president's standard greeting, "Howdy," is representative of our management style, low-key, with little attention to the formalities of executivedom — a style that has been described as "relaxed," "refreshing" and (less flatteringly) "backwoods."

As a matter of fact, "executive" is hardly a Tek word at all. Using it marks you as an outsider, just as if you'd mispronounced "Oregawn" or referred to anyone at Tek as "Mister." (We've all been on a first-name basis since the company began.)

A photographer assigned to shoot Tek managers at work put it well. "I give up," he said after wandering around a bit. "I can't tell who the managers *are*."



Like any entity, Tek was a child of its times, its location and the personality of its founders. Although the following can't be carried too far, there are some interesting parallels between our country and our company:

Both are democracies of a fairly advanced sort, one political, one industrial. Both are world leaders. Both owe much of their current value system to the strong beliefs of their founders. Both are mostly geographically centralized, allowing that value system to spread undiluted by physical scatter. Both have succeeded over their history. Disaster (military defeat, commercial failure) might have challenged those basic values; success has reinforced them.

Both have a commitment to individuality. Thus both have integrated a wide diversity of influences and still maintain an essential recognizable character.

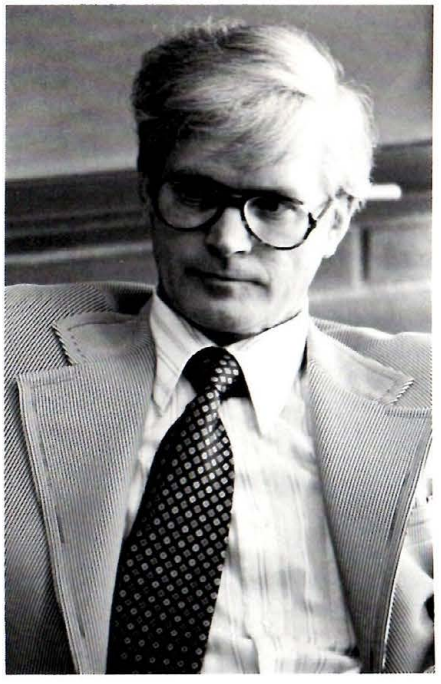
Importantly, neither has become a widely copied role model. Strong nations exist, for whom democracy, US style, is unworkable. Fine companies are

prospering, with far different managerial styles from ours. (If our approach were "best", you'd see a world full of Tektronixes.)

Tek's approach to management bears the stamp of strong early influences:

1. We came into being on the informal West Coast, as part of an infant industry with no tradition of formal behavior. Our first-name casualness was a natural outgrowth.

2. Tek's founders were quiet, unassuming men, not fond of public attention, non-authoritarian. Their personalities reflect today in the low-key, understated Tektronix style.



"I want us to remain able to make the kind of insightful decisions our leaders made in the past, that looked risky and not too smart at the time, but proved to be exactly right. We mustn't become overawed by data; the odds, if you know them, are probably against the success of ***any*** *new idea. Anyone can shoot an idea down..."*

Bill Walker,
Group Vice-President

3. We acquired more than our fair share of good people. This was partly because we chose them for long-range potential rather than for merely the job at hand. Today's EEO regulations would inhibit such a practice; but it stood us in good stead. By carefully choosing our employees, we were actually staffing our future management organization with highly able people.

4. Each of the founders contributed unique insights, which have had lasting impact on our company. Jack Murdock was extremely service-oriented, unusually skilled in seeing the customer's point of view. Howard Vollum complemented that ability with an intuitive feel for what product characteristics would be (a) technically achievable and (b) of greatest value to users.

5. Most of our early people were technical; none had much professional management experience. Also, the early job was straightforward: Produce and market proprietary electronic products, particularly cathode-ray oscilloscopes. "Management" wasn't seen as a high priority, certainly not in any formalized sense.

(There even arose a feeling that non-technical adjuncts were something to be avoided or apologized for. An early roster listed our advertising staff as "Promotional Engineering.")

6. But as the company got larger and more complicated, Tek figured it could use some counsel in managing. Help came largely from sources then in vogue, mostly tilted toward human relations and away from authoritarian behavior: Author Douglas McGregor; The Menninger Foundation, with which Jack was intimately involved, and Tek's own in-house group of industrial psychologists, the Human Relations department, that had a loosely defined charter but a lasting influence.

This strong people orientation, because it occurred at such a tender age, has had a great effect on Tek. Had it been even a decade later, the major outside influence might well have come from professional management consultants—and a different kind of company might have emerged.

7. Luck was on our side. Some possible strong competitors failed to recognize either the potential size of the oscilloscope market or the growing leadership of Tektronix. By the time they awoke, we'd become the company to beat.

8. We had to do almost everything ourselves. Electronics was in its primitive stages, and what suppliers existed were mostly far away; we learned to make parts, invent processes, jury-rig equipment. We couldn't afford specialists; employees learned to do a bit of this, a bit of that. Thus pressed, we found we could do things we'd not dreamed of. A smugness developed that Tek people could do *any*thing.

Irrational? Yes — But that belief persists here today. And it has a positive

effect: Our people often tend to achieve things you wouldn't bet could be done. Our president calls it "stretching what's possible," and it's become a Tektronix way of life.

9. We put major innovative programs and mechanisms into place in our early years that we might never have decided to adopt when we became larger. They include:

• The Tektronix honor system, trusting each employee to behave honorably in small as well as big ways. It was typified for over 15 years by open cash boxes in our cafeterias. Employees chose their food, figured their bills, made their change. Only in the '60s, when heavy cafeteria traffic forced us to place cashiers in foodlines to speed up lunch, did this practice vanish (and then only after much agonizing by management.) Today, other than at mealtimes, open cash boxes are still a Tek trademark.

• The Area Representatives. Now an employee-directed communications activity, it grew out of informal meetings of the whole company in its smaller days, to discuss with Jack and Howard what was going on. When growth made such gatherings cumbersome, a mechanism was set up whereby continuing contact was carried on through elected employees, each representing a geographic area.

• Profit sharing. An employee suggested it in 1949 as a more meaningful way to link individual and company fortunes than the then-existing production bonuses. Management objected at first, pointing out the risk of smaller paychecks should profits decline; employees agreed to run that risk. It has proven to be a powerful operating influence on the company.

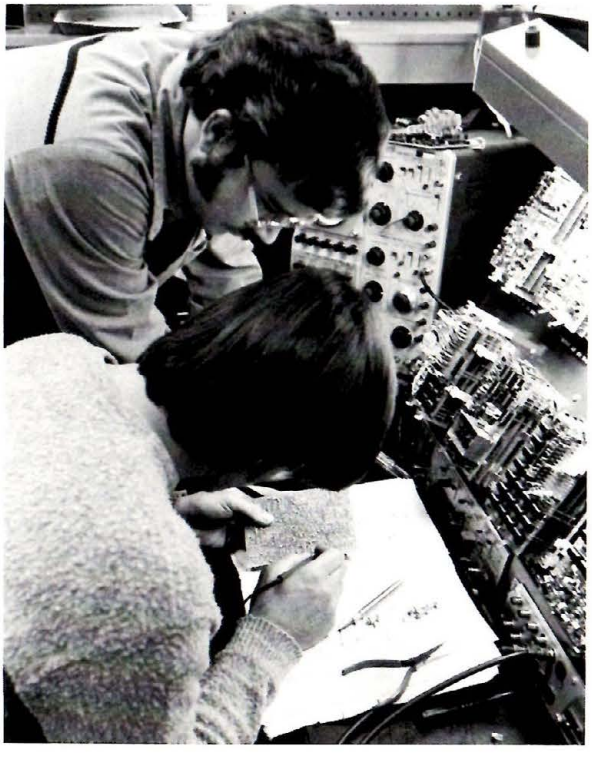
10. Good, intuitive — and courageous — decisions were made in the early days, that had far-reaching effects. Two of great importance, made in the early '50s, were: Deciding to manufacture our own cathode-ray tubes, against the advice of just about everybody; and choosing to market our products directly in the US rather than keep selling through manufacturer's representatives. The two decisions gave us a great competitive edge, even after they were copied by others.

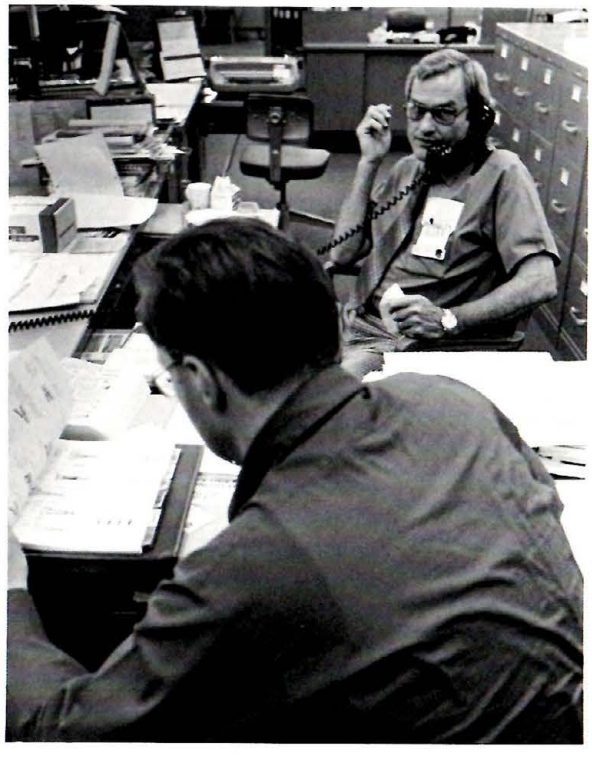
11. We've been blessed by having a chief competitor who is not only tough and resourceful but also highly ethical — thus reinforcing our own technical endeavors and high business standards.

12. We placed great early value on Tek quality, and, since we were enjoying success, sometimes had trouble telling "nice" things from necessary ones — like painting surfaces that wouldn't show in a finished product.

Les Stevens, now a group vice-president, recalls that we had the habit of stacking one Tek-made part in neat piles, interleaved with waxed paper to prevent scratching. "I was visiting a competitor," he said, "and they were making the identical parts, only throwing them into a barrel, I checked, and it didn't hurt the parts a bit. But to do that sort of thing at Tek? It was *unheard of.*"

With a slight economic slowdown in the early 1960's, we began to re-examine many of these practices and sift out some that were nice but counter-productive. Still, "It *has* to be Tek quality" is often echoed here today.





MANAGEMENT: Color It Shades of Gray

"I sometimes believe," mused President Earl Wantland, "that we're the most complex company in the world."

Pressed to elaborate, he went on:

"That's because we recognize complexities *as* complexities. We don't oversimplify them just to come up with answers.

"Once that's done, then folks can deal with them. People are intelligent; you don't do anyone any favors in the long run by pretending a problem or situation is simpler than it is."

In putting onto paper the elements of our management style, a good starting place is Tektronix' complexity and its unwillingness to oversimplify. It's for sure: Tek doesn't do much to make things easy on its managers. Almost certainly, we overload them.

Guy Frazier, director of Employee Development:

"One reason we've succeeded is the willingness of even the first-line managers to step up to a *very* broad, and often conflicting, set of responsibilities."

We have no foremen here, in name or function — whose management job is limited to a single task, like getting out a given number of whatzits. Even the first-line Tek manager is expected to discharge a long list of responsibilities, including some that in a different company would be held by his or her boss, and others that in another organization would be staff functions. They include hiring; judging employee performance; administering pay; safety; adherence to state and federal laws; budgeting; acting as role model, career counselor, trainer ... the works.

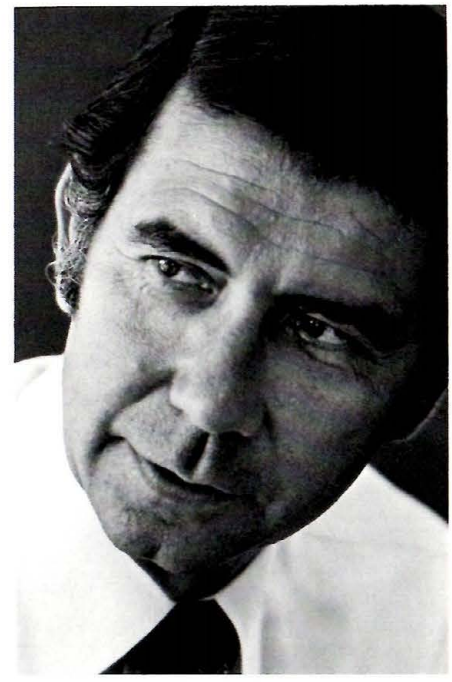
"That practically guarantees," comments Guy, "that he or she won't do all of them well." But that manager will mature far more able to make subtle distinctions and balanced judgments, understand the compromises and shades of gray that any decision involves, and deal with complexity on its own terms.

We expect some things of managers that any company would, others that are central staff functions elsewhere, and some that happen only at Tek, because we're the kind of company we are.

To prosper in the Tektronix environment, a manager must first be aware of its ingredients, many of which are unique.

This list is not complete; nor does it attempt to assess whether these elements are "right" or "wrong." But they *are* influential parts of the Tek culture, and a successful management style here must somehow integrate them all.

- *Respect for the dignity of the individual human being,* perhaps the basic Tektronix creed. Jack Murdock once admitted he didn't know exactly what the term meant; "but," he said, "you sure can tell when it's not happening." Tek will not knowingly tolerate injustice, or infringement on human dignity.
- *Profit sharing as part of current pay.* This practice goes a long way toward



*"I sometimes believe we're the most complex company in the world, because we recognize complexities **as** complexities. We don't oversimplify them just to come up with answers. You don't do anyone any favors in the long run by pretending things are simpler than they are..."*

Earl Wantland,
President

linking employee and company objectives. Employees see Tek, in a real sense, as *their* company. What goes on anywhere in it *is* their business. They're expected—encouraged—to be questioning, challenging, aware, helpful . . . You never know when someone will poke a head in to ask what you're up to—and then maybe help you do it.

Tek shares roughly one-third of its pre-tax profits with employees, putting them about on a par with shareowners and the tax man as stakeholders in Tek operations—an equity rare in industry.

• *Open communications.* Our publications are historically free of management censorship. The Area Representatives, unusual in that it's employee-run, provides a unique informal channel to bring management and non-management together to discuss mutual or individual concerns.

There are many avenues for expression, and they're freely accessible; employees have a wide selection of ways to say whatever they want to say. An interesting result: The occasional "underground newspapers" that pop up here every year or so tend to stop with Volume 1, Issue 1. Why go to all that effort to say something underground that you can say in a half-dozen legitimate ways *above*-ground?

(And a former vice-president noted that Tek was the only company where he'd never seen graffiti on the restroom walls.)

• *The Tek honor system,* built on the belief that people are worthy of trust. Some are fallible, true; yet, theft here is less than in most companies, says our Security Consultant Myron Warren—a grandfatherly ex-detective much honored for his human-relations work with police (the sort of security person you'd expect at Tek.)

When Tek is your company, those who steal are stealing from you, he points out; so there's little looking the other way when misbehavior occurs. The power of peer pressure shouldn't be underestimated. (Nor should the seriousness with which we view violations of trust.)

Companies with elaborate anti-crime operations, he adds, tend to have *more* crime—and pay for the cost of security to boot.

• *An informal atmosphere.*

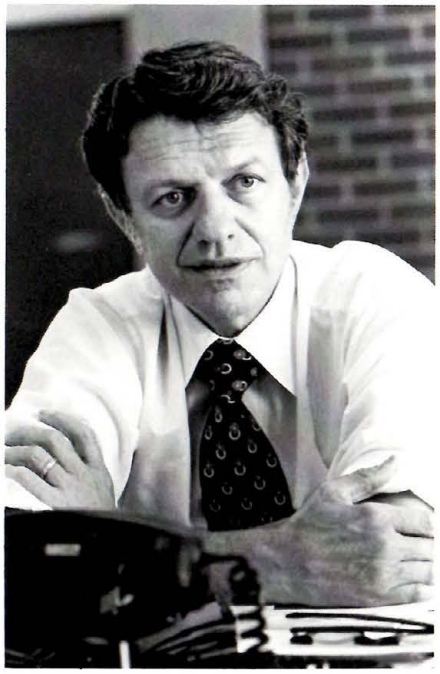
• *Little built-in awe of management,* thus a great deal of candor at any level of discussion. Managing is seen as an important job but not inherently more prestigious than many others.

• *High tolerance of criticism*—from any source.

• *Absence of formal organizational charts* and their emphasis on "up" and "down". There is here what Guy Frazier calls "cultural freedom"—freedom to suffer a setback, or even fail, without disgrace, and still find a place in which you can be productive and rewarded. Our roster is studded with people, including some at high levels of responsibility, whose careers have gone every which way and who are now the most respected of contributors.

• *A history of non-authoritarian behavior;* few rules, many exceptions; a jealous guarding of individual discretion; great trust in human judgment, and a reluctance to chain it with "musts."

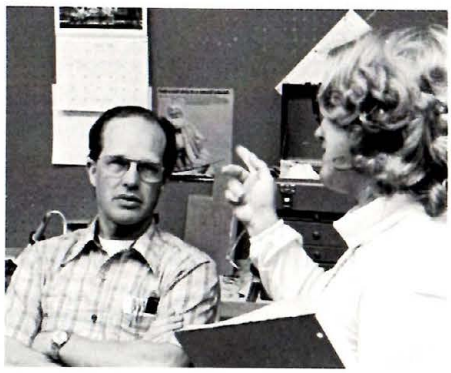
• Countering the above: *More and stricter laws and regulations.* That means we need more and stricter internal procedures. The government is not being noted for its tolerance of even the most lovable corporate deviations.

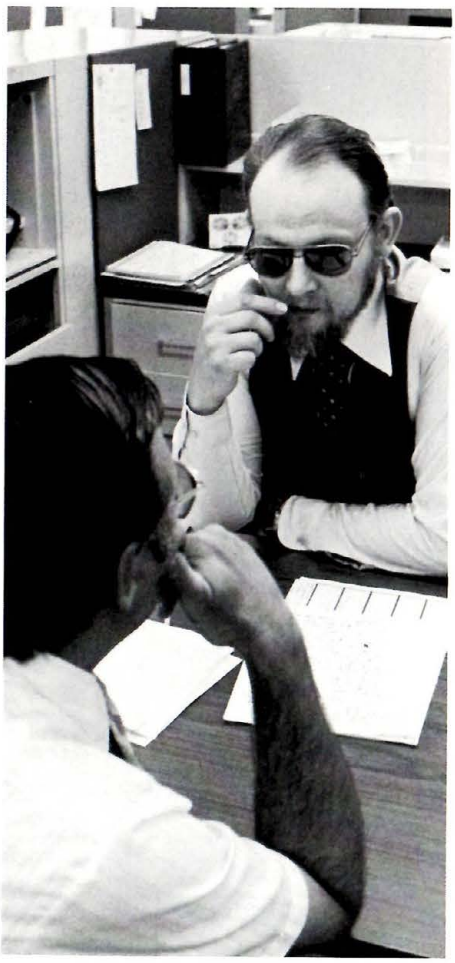


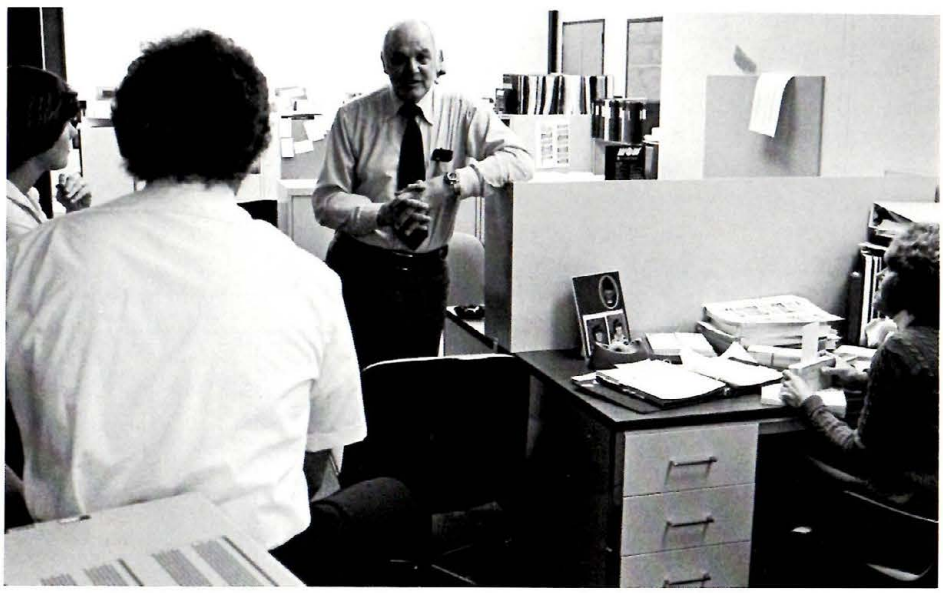
"We're not as different as we think. We're interested in high technology, in high values and in people; we're in the total ball game for the long term. Quality companies in our field have these goals—or will get them . . ."

Bill Polits,
Group Vice-President

- *Policy of promoting from within the company,* for most jobs.
- *High respect for technical expertise*—and a correspondingly skeptical look at ivory-tower generalists. "You *must* be a generalist to manage such a complex enterprise," says Earl Wantland, "but you're unlikely to do it well if you haven't first been a successful specialist—for only then are you equipped to understand the many subtle aspects of any given decision. Even better is to have specialized in *more* than one area."
- *Basically a single-site operation through most of our history,* enabling Tek culture to rub off from person to person.
- *Absence of labor unions,* which has given us great operating flexibility—and let us offer a rich diversity of job and career opportunity. Many jobs tend to expand or change shape to fit the individual's abilities. Also, there's great ease of lateral mobility here, allowing people, by trial and error, to find the just-right niche.
- *A passion for quality,* almost to a fault.
- *Rapidly expanding company size,* adding a new dimension to many problems—but also new kinds of opportunity.
- *The speed of technological change* in our industry.
- *Loyal employees,* proud of *their* company.







Management Style and Substance

Groucho Marx refused to join any club that would have a person like him as a member. The opposite thing happens often at Tek.

One of our strengths has been our ability to hire and retain the particular kind of people our sort of participative organization thrives on: People who join us in part because we're the kind of company that would hire people like them.

Any sort of organization has a reasonable chance of succeeding if it's run by people who flourish in that kind of system. For instance, an army will work well unless it has too many soldiers who don't believe in authority.

Now comes the really rough part:

Just what *is* our "management style"? It depends on whom you ask. Views here range widely, and can get pretty emotional. What follows is an attempt to distill many conversations with many Tek managers. Predictably, not every point has unanimous agreement; thus, feel free to inject "probably", "likely" and "it would seem that", as needed.

You could read the world's best book on vanilla, yet have no idea what vanilla tastes like. Tek's managerial flavor may be as elusive.

First off, management can't be measured in the sort of specific terms that, say, sales and orders can. Our only "measure" will have to be the excellent year just ended, the six years of continued growth before that and our long history of success. They testify to effective professional management.

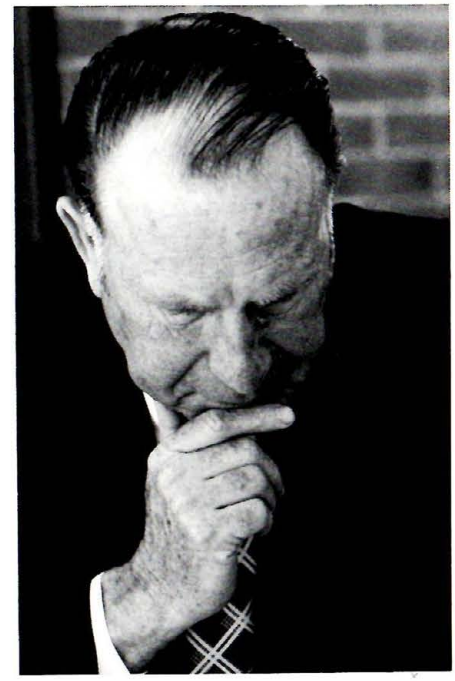
So that the following summary won't seem to be a recitation of Boy Scout virtues, please note that there are a lot of equally "good" management characteristics we do *not* believe are true of us.

For instance, we'd hate to rest our reputation on the speed at which we make decisions; or on having a consistent, binding set of corporate procedures; or on the presence of a formalized management structure.

Our management ranks do not ooze charisma. Nor does the word "incisive" apply to our leadership style. We don't define most jobs here rigidly; we're no better than average at setting performance standards. We do not exact stern consequences for failure.

Our top managers have few impressive academic credentials, or long pedigrees, either family or industrial (other than at Tek). We're not known for managerial polish. We lack a dynamic corporate image; outside our industry, Tektronix is not a household word (and frequently both mispronounced and misspelled.) Our company does not have a strong public presence in political or economic issues. Our management is not light-hearted. ("Grim," is one assessment.)

That list, of what we're not, could go on and on. Now, here are some of the things our management approach *does* entail that, taken all in all, continue to work very well for us:



"It bothers me to see a satisfied manager. It's inconsistent with our striving for excellence . . ."

Lew Kasch,
Group Vice-President

*"We ask even the first-line manager to step up to a **very** broad—and often conflicting—set of responsibilities. That practically guarantees, of course, that he or she won't do all of them well..."*

Guy Frazier,
Director of Employee Development

*"I don't think Tek is ever satisfied with **anything** it does..."*

Norm Silver,
Director of Human Resources

Tek management tends to be:

- *Reflective, thoughtful,* given to subtle distinctions and balanced judgments. Hardly a decision is made that doesn't show sensitivity to myriad factors: Cost, need, effect on profit share, impact on people, effect on other departments ... There are few simple decisions; we have trouble even finding simple questions.

Few managers here deny this thoughtfulness. (Some suggest that we probably carry it too far. We're graduates cum laude of the Fussbudget School of Management, one claims, adding, with some affection, "We wallow in problems.")

- *Consensual.* Many decisions are made through consensus, by the participants or combatants coming to general agreement. Edict is a last resort.

The value of consensus is that, although decisions may be slower to come by, they're faster to carry out. By contrast, majority decisions, or autocratic ones, are fast to make, but often slow to implement, due to foot-dragging or half-heartedness by the disgruntled members who were outvoted or overruled.

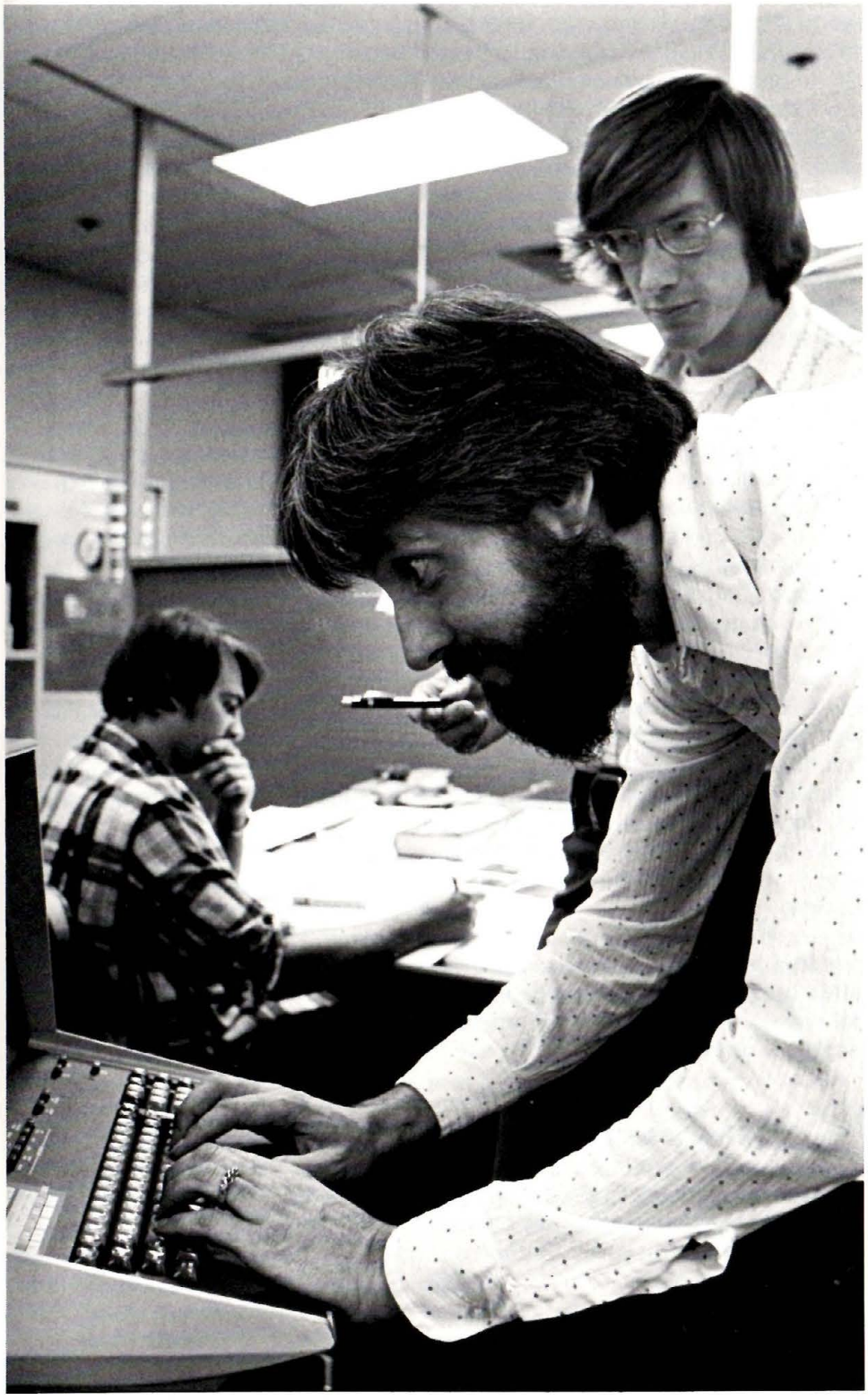
Consensus implies compromise. Tek managers are expected to be advocates of their functions in such discussions, so the compromise will be a balanced one. In our atmosphere, where all employees are expected to challenge whatever goes on, and where possessing rank is not in the least awesome, management exchanges are unusually candid and open, a creative disharmony.

One plus of consensus is that a manager is far more likely to be committed to carrying out a decision — even a compromise one — when he or she has participated in making it. "The advantage of second-best solutions," a sage Tek ex-manager once said, "is that they may *work*."

- *Critical—particularly of itself.* "I don't think," sighs Norm Silver, Human Resources director, "that we're ever satisfied with anything we do." Tek is great at redesigning, editing, modifying.
- *Fad-resistant.* Being so critical, and strongly centered in a deeply-held set of corporate values, Tek is infertile soil for management fads that happen to be "in" at a given time. Seldom have we done something because someone — or everyone — else did.
- *Honest, of high integrity.* Probably expected of most managers anywhere, these basic characteristics are essential at Tek. Our honor system demands them; and the continuing give-and-take between management and non-managers would show up their lack. People are perceptive, quick to detect sham.

In a recent survey of employee attitudes, done by an outside firm, Tek people ranked our management "very high" on honesty, genuineness, concern for human welfare.

- *There because they like it.* Our managers tend to be people who enjoy the job. Two things help out here: One is that, with no special status or undue reward given to managing, an engineer, say, doesn't have to become a manager as the only avenue to increased influence or higher pay. Second, a person who tries his or her hand at management, and chooses not to stick with it, can move back into some other kind of job with no loss of grace. Tek's culture neither bribes its managers nor entraps them in the job.
- *Tolerant of criticism* — and responsive to it. Many, many improvements in



our way of doing things have been suggested by subordinates, peers — or strangers from some other department. Because good suggestions tend usually to be acted on rather than merely "given consideration," we probably get more than most companies.

• *Reliant on judgment rather than rulebooks.* That makes decisions far tougher, of course, and puts the responsibility squarely on the manager. Today, governmental pressures call for increased internal consistency. Even so, we have fewer rules and less-binding ones than most companies. Our policies, by allowing wide discretion in how they're applied, have enabled us to attain some really desirable goals; for instance, open-ended retirement — certain to be the wave of the future everywhere — and flexible work hours accommodating to the widest range of employee schedules and personal preferences.

"It's not that our policies are loosely drawn," Earl points out, "but we recognize that *any* idea has a limit to the context within which it's valid. The job for our managers is to recognize when they've exceeded that limit."

With Tek's emphasis on personal growth and self-renewal, we spend a lot on management-development programs. What's unusual here is that they're largely cafeteria-style, rather than mandatory. The manager (usually self-nominated) picks and chooses. There's no required sequence of training all managers *must* go through.

This free-feeding approach has a great advantage: Courses and programs succeed on their merits. Those that are not seen as helpful fade away. The good, useful ones stay.

Our job descriptions typically stress desired results, and give the manager a lot of say as to the limits of his or her job. A too-tight buttoning-down of job requirements (despite what the management experts maintain) limits the individual's latitude to take risks — or to wander off the road to help someone else. Our profit-sharing company has flourished through the mutual assistance of our people. You almost never fail to get the help you need.

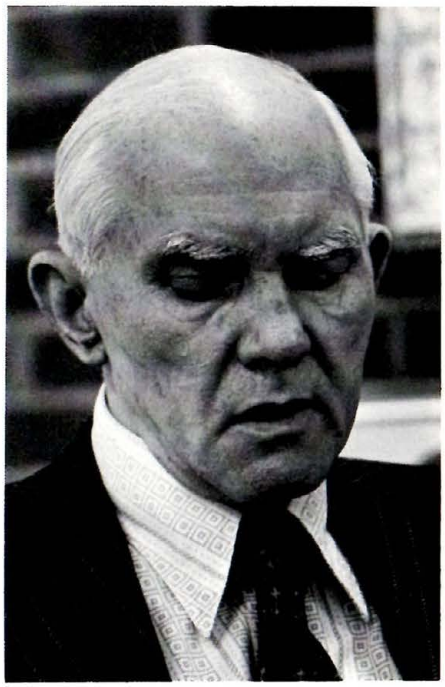
(We've never had a paid employee-suggestion program — or found that one is needed. People require no such incentive to be both constructive and broadly helpful.)

• *Sensitive to human needs.* Employees rank Tek managers high here. A prime charge placed on management at any level is to try to honestly understand human concerns. They've shown willingness to put themselves into even embarrassing or heated confrontations, to better understand the nature of employee problems.

• *Not "paternalistic."* Our strong people-orientation has led some outsiders to use that word on us. It doesn't fit.

Profit sharing, often called an "employee benefit," is no such thing. It's a way of paying, entailing shared risk. The employee agrees to let a substantial chunk of his or her monthly pay vary with the ups — and downs — of the company.

Our benefits package is competitive, but not munificent. Each benefit is weighed against the effect on shared profits. There's no country-club atmosphere here; we have no company recreation program at all. We've turned down many benefits other companies have adopted that seemed to be either costly beyond their value, or else useful to a few employees but paid for, through profit share, by all of us.



"New ideas are so fragile. They need a supporting atmosphere at first so they can be fully developed — then the closest possible scrutiny so we choose the best ones. It's not an easy art to recognize at which stage the idea is, and respond accordingly. But certain of our managers are very skilled at it..."

Howard Vollum,
Chairman, Board of Directors

Our education program, free or nearly so to employees and families (see page 16), is no gift, either. At the same time the individual expands his or her abilities, Tektronix enriches its own storehouse of human resources.

One manager termed our approach "*frat*ernalistic." Not bad.

• *A grower of people.* "Our management style kills off some people, too," admits Guy Frazier. Those preferring more structure, or impatient with the pokiness of consensus, tend to leave.

A major charge placed on each Tek manager is to grow people; the concept of the manager as coach is widely held here.

In a time of fast growth such as this year, we'd be in a pickle if we had only green reserves to fill new management slots. Tek offers something few companies do — a wide range of quasi-managerial activities, allowing non-managers to gradually assume responsibilities beyond their jobs.

For starters, most of the decisions affecting how a job is done are made by the employee, not the manager. Many others are shared between them.

"Manager-prep" activities include our education program. It contains versions of management-development courses, but open to any employee who wants to take them. Here, you can learn how to manage better without ever having managed at all.

The Area Representatives is an important way of developing a range of interpersonal, communications and leadership skills. Through monthly large-group conferences with corporate spokesmen, and access to *any* Tek manager, the Area Rep develops a close awareness of what the company is all about.

This avenue for self-development is available to everyone here. *All* Tek employees are allowed 40 minutes of company time each month, to use in whatever way they find most broadening and helpful: Tours of Tek operations, films or speakers on company topics, informative gatherings with managers or staff people.

Membership on safety and similar committees or on one of Tek's many task forces, where non-managers and managers intermingle as peers, allows another "insider" view into what it takes to run a company. So do employee job-improvement teams.

Our management-trainee program is different, too. First, it allows self-nomination as one way a trainee is chosen; second, it's run, not by a staff group, but by managers themselves. Like any Tek management-prep activity, the trainee program is designed to develop ability, not to guarantee a job as manager.

• *Leadership-oriented.* If push comes to shove, we tend to seek and promote those who can lead above those who can manage. It's a subtle distinction, and far harder to evaluate leadership potential than possession of managerial skills. "It's a spirit more than anything," says Howard Vollum.

And one more thing, contributed by Jim Harper, Manager of Employee Relations:

"They're *proud* to be Tektronix managers."

The Critical Issue

"Our job will become how to make more clever use of the dollars and experience we've gathered . . ."

Larry Mayhew,
Group Vice-President

Knowing a bit more about how we manage may give you a perspective on some critical discussions facing the company. Their topic is the need for greater structure, more centralization and less managerial diversity — or not.

It's being dealt with at all levels, and is a major top-management concern. We may not have debated any issue as hotly since our 1971 decision to do away with unlimited free coffee for employees. (That's said only partly in whimsy. The coffee decision — typical of the kind of thing our management takes very seriously — was a wrenching one.)

One reason recollections of the Good Old Days are so pleasant is that they're so fuzzy. Tek never could have risen to its present size and prominence if it had *really* been the undisciplined, shambling company that some fond memories suggest. (Our unobtrusive organization, which tries to stay out of the way so people can get on with their work, did probably create the illusion there was less structure than actually existed.)

Also, it's true we were—and *are*—far less given to rules than most companies we know, certainly any this big.

But, controls and centralized systems have gradually increased here, right in the midst of our discretionary atmosphere. Most are seen as beneficial: Our formalized planning cycle gains sophistication yearly. Budgeting is more orderly. Parts control and order-processing systems are in place. In general, data gathering and analysis have grown far more systematized.

Yet the "structure" issue is a heated one here, to an extent that it probably wouldn't be elsewhere.

What's giving the matter immediacy is Tek's explosive growth. Weighing in favor of more structure and controls are four forces:

1. Increased government regulation, requiring more consistency in companies' behavior and reporting.

2. Concern that growth demands a strong coordinating hand so spread doesn't become sprawl.

3. The very fast onset of major technological changes that will pervade our whole organization — microelectronics, digital circuitry and an emphasis on software. They'll require consistent approaches and major management decisions.

4. A sense of new emphasis on formal strategy. "There might never be another major technological breakthrough here," points out Group Vice-President Larry Mayhew. "Most companies don't have more than one or two in their lifetimes.The job will become how to more cleverly use the dollars and experience we've gathered — better use of what we know."

Group Vice-President Les Stevens agrees: "The most successful companies in the long run will be those with the best strategies."

But there are also strong forces resisting more structure:

One is simply our long history of managerial discretion, and of informal and limited controls.

Second, the sort of attributes that flourish in an unrestrained atmosphere—innovative thinking, pursuit of creative ideas—are perceived as having been the major causes of our success. Systems and controls are seldom mentioned in that regard. So it may be that structure is viewed as running counter to basic Tek values.

Creativity, freshness of insight, willingness to challenge accepted ideas are regarded *very* highly here. Our history has hundreds of examples of unorthodox thinkers, whose ideas have added to our reputation and shared well-being.

Still, growth, governmental pressures and mushrooming technology all require adding more structure—to a company not historically wild about that sort of thing.

In that sense we'll be moving slightly toward most other companies. At the same time, because of current shifts in social attitude, many of them are moving *our* way, toward increased industrial democracy. Not that we'll bump or pass each other; but homogenizing influences do exist.

So the question isn't "Structure or not?" It is, "How much? What kind? How will it be used?"

"There's no point in having structure for structure's sake," admits Les Stevens. "But there is *great* organizational value in setting goals and achieving them—whatever tools that requires."

Each new bit of structure, he points out, represents a corporate decision to do one more thing consistently. "If you want to insure that something will happen, you have to set up some mechanism to see that it does. Or it won't."

Those leery of centralized systems have several concerns. One is that such systems oversimplify complex matters, and "merely substitute consistent decisions for good ones."

Another, that the systems designer, lacking closeness to the individual cases, is required to possess great insight instead. (The federal government is offered as an example that the required insight doesn't always happen.)

"We need to avoid getting central systems too big, whatever immediate problem they may appear to solve," warns Bill Walker, group vice-president. "We have to manage our way through these tough decisions. That's the hard route; but, if we fail to do it, we'll get what we deserve—a ponderous, less keenly insightful organization."

He fears also that the reasoning behind centralized procedures often is lost on the manager who must follow them: "If I hear someone say, 'Don't ask me; I just work here,' I begin to worry."

And he's concerned that centralizing a given responsibility tends to cause the line manager to abandon it—diminishing the sense of stewardship and exercise of judgment that we prize.

Howard Vollum comments:

"One of management's biggest jobs is to decide the relationship between freedom and boundaries. Boundaries can be a support, in that you can't work

"There's no point to structure for structure's sake. Nor is participative management a value in itself. But there's ***great*** *value in achieving the goals you set—whatever tools that takes..."*

Les Stevens,
Group Vice-President

without them; yet they may also be a limit, in that they rule out judgment. You need appropriate ones — and the optimum number isn't zero."

However the dialogue goes, almost surely what will come from it is something unique to Tek, a structure consistent with our heritage and managerial style. (An old China hand noted how little Communism has changed the Chinese character; adding, however, that China has undoubtedly changed Communism.)

Les Stevens might agree. "Things really do not change very fast," he maintains, including the character of an organization. An advocate of increased structure, he points out, however, that Tek's strength lies in its system of human values — and the extent to which we *live* them.

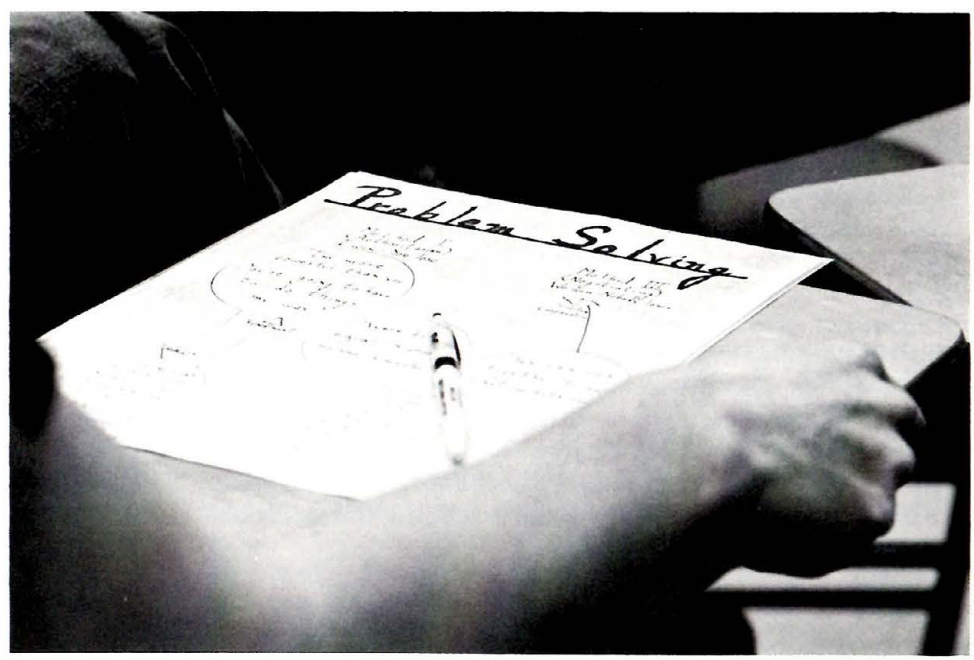
"If we ever lose that, we're down the drain."

In Tek's search for a compromise that fits our organization, the traffic signal may be a useful model.

If there were just a couple of farmers in the valley, an employee points out, a traffic light would restrict their freedom and buy them almost nothing in return. But with a valleyful of people, and heavy vehicular traffic, a light enables far more freedom than it takes away.

But is that possible in industry — to develop a system of structure that increases consistency and yet doesn't clamp-on conformity; that, by more effectively channeling creative energy, nourishes it rather than inhibits it?

That's a tall order. Such a system has few precedents. But — in a company that's learned to stretch what's possible, and committed to excellence — certainly a goal worthy of the organization.



COMMON SHARES — DESCRIPTION:

The authorized capital of Tektronix was increased from 20,000,000 to 40,000,000 common shares without par value on September 24, 1977. All references to numbers of shares, share prices, dividends and earnings per share have been adjusted to reflect the 2-for-1 share split on May 9, 1977.

PRICE RANGE OF COMMON SHARES:

Common shares are traded on the New York and Pacific Stock Exchanges. The table below shows the range of sale prices of the Common Shares for the periods indicated. Prices through January 23, 1976 are for transactions on the New York Stock Exchange. Prices after that date reflect composite prices reported by the Wall Street Journal for transactions on all exchanges where the Common Shares are traded and for reported transactions not on an exchange.

High	Low	1975	High	Low	1976
16-1/2	9-1/16	First quarter	30-1/4	22-1/8	First quarter
19-3/4	14-3/8	Second quarter	32-1/8	28	Second quarter
20-5/8	15-7/8	Third quarter	34-1/4	29	Third quarter
22-3/4	18-13/16	Fourth quarter	34-7/16	28-7/8	Fourth quarter
High	**Low**	**1977**	**High**	**Low**	**1978**
34-1/4	28-1/4	First quarter	37-5/8	32-1/2	First quarter
36-3/8	28-1/4	Second quarter	45-1/2	32-3/4	Second quarter
38-1/2	33-7/8	Third quarter	44-5/8	40-1/8	Third quarter through July 24, 1978
40	35	Fourth quarter			

CASH DIVIDENDS:

After paying cash dividends on a semi-annual basis from October 20, 1972 thru October 24, 1977, quarterly payments were initiated January 16, 1978. The table below shows the dividend paid on each outstanding Common Share on the date shown.

SEMI ANNUAL	*QUARTERLY*
6¢ October 27, 1975	12¢ January 16, 1978
6¢ April 27, 1976	12¢ April 10, 1978
7-1/2¢ November 1, 1976	12¢ July 5, 1978
15¢ May 9, 1977	
24¢ October 24, 1977	

Payment of future dividends by Tektronix is within the discretion of the board of directors. Whether future dividends are paid will depend, among other things, on Tektronix' earnings, capital requirements and financial condition.

PRINCIPAL SHAREHOLDERS:

Only Howard Vollum, Chairman of the Board of Directors, holds more than 5% of the outstanding shares. On June 30, 1978, he held 3,672,680 shares of record, or 20.49% of the 17,923,000 shares outstanding. Members of his family held an additional 114,204 shares on that date, for which Mr. Vollum disclaims beneficial ownership.

MANAGEMENT'S DISCUSSION AND ANALYSIS OF STATEMENT OF CONSOLIDATED INCOME

The tables below set forth the increase in certain items of the Company's Statement of Consolidated Income and Reinvested Earnings for the periods indicated and the ratios of those items to net sales. The following discussion should be read in connection with the information in the tables and the Company's Statement of Consolidated Income and Reinvested Earnings and accompanying notes.

Increase, As Compared to Prior Fiscal Year (amount in thousands)					Ratio to Net Sales (%)		
1977		1978			1976	1977	1978
Amount	%	Amount	%				
$88,313	24	$143,928	32	Net sales	100.0	100.0	100.0
53,268	18	114,088	32	Test and measurement sales	82.6	78.3	78.5
35,045	55	29,840	30	Information display sales	17.4	21.7	21.5
26,780	16	70,419	36	Manufacturing cost of sales	46.2	43.1	44.5
12,370	24	22,805	36	Selling expense	14.1	14.1	14.5
8,953	30	11,175	29	Engineering expense	8.1	8.5	8.3
8,624	27	12,773	32	Administrative expense	8.6	8.9	8.9
12,806	48	9,189	23	Profit share expense	7.2	8.6	8.1
(628)	(13)	117	3	Interest expense	1.3	0.9	0.7
1,099	50	2,765	84	Non-operating income	0.6	0.7	1.0
20,507	37	20,215	27	Income before income taxes	15.1	16.6	16.0
13,882	46	12,875	29	Net income	8.2	9.7	9.5

Test and measurement sales were $303,-021,000, $356,289,000, and $470,377,000, respectively, for the 1976, 1977 and 1978 fiscal years. Information display product sales for the same periods were $63,624,000, $98,669,000 and $128,509,000.

The increases in sales for both 1977 and 1978 reflect primarily increased unit sales of both test and measurement and information display products. The Company believes that the increased unit sales were due to a strong market for electronic equipment during the last year, and, in the case of information display products, to the increased market acceptance for graphic computer terminals. The sales increase for fiscal 1978 is also attributable in part to price increases for test and measurement products.

Manufacturing cost of sales increased by 36% for 1978, primarily as a function of higher sales levels. The increase of cost of sales as a percentage of sales for 1978 as compared to 1977 is primarily attributable to expense associated with expanding the rate of production, including the hiring and training of new manufacturing personnel (total employment increased 31% from 14,637 at May 28, 1977 to 19,147 at May 27, 1978), and, to a lesser extent, to increased use of higher cost components obtained from outside sources. The cost of sales decrease as a percentage of sales for 1977 as compared to 1976 is attributable to a gradual shift in product sales to products with a lower ratio of cost of sales to sales, to economies of scale as volume increased, to improved productivity and to improved product design.

The increases in selling expense and administrative expense for 1977 and 1978 reflect primarily the increase in business activity for those years. Engineering expense increases reflect the Company's continuing program for the development of new products.

The Company pays cash and retirement profit share based upon income of the participating companies before taxes, profit sharing, executive incentive compensation and charitable contributions. Profit sharing expense also includes executive incentive compensation. Effective December 1, 1974, Tektronix, Inc. adopted an Employee Pension Plan to augment the benefits under its Retirement Profit Sharing Plan. Charges to payroll expense for the plan for fiscal 1976, 1977 and 1978 were $4,968,000, $5,569,000 and $5,714,000, respectively. See Note 7 of Notes to Financial Statements.

Items included in determining "Non-Operating Income" are primarily interest income, the Company's equity in earnings of Sony/Tektronix Corporation, charitable contributions, and foreign currency gains and losses. The increase for 1978 is primarily attributable to increased earnings of Sony/Tektronix Corporation, a 50% owned, non-consolidated foreign affiliate and to increased interest income.

Effective tax rates for 1976, 1977 and 1978 were 45.5%, 41.9% and 40.8%, respectively. The

changes in tax rate are primarily attributable to fluctuations in the percentage of earnings taxed at rates applicable to United States earnings and, in 1978, to additional investment tax credits available to the Company.

Expenses for maintenance and repairs and advertising have increased generally with the increases in the level of the Company's business activity. Increases in payroll tax expense reflect higher payroll tax rates and wage levels, increases in the Company's work force and taxes paid on increases in profit share.

Net income increases reflect primarily the increased sales and the decrease in effective tax rate discussed above. The increase for 1977 is also attributable to the decline in manufacturing cost of sales as a percentage of sales mentioned above.

EXPLANATION OF FINANCIAL STATEMENTS

Corporate performance and strength are usually measured by financial figures, although they only tell part of the story. It is hoped the explanation included as part of the financial statements will assist shareowners unfamiliar with financial analyses to a better understanding of Tektronix.

Performance is usually presented on the income statement, which shows how much of the revenue, mostly from sales, can be kept by the company after paying the costs of goods sold and the expenses of running the business.

Strength is pictured by the financial position statement, which shows the cost of the assets or resources used in the business and tells what part of them is owned by the shareowners and what part owed to creditors.

Another statement, Changes in Financial Position, shows the connection between the other two statements. Note that the first item on this statement is the earnings shown on the income statement. The last item is the working capital shown on the financial position statement.

To best adapt to conditions outside the United States, Tektronix operates in Japan and Austria through non-consolidated 50% owned companies, and elsewhere through wholly-owned subsidiary corporations. However, a meaningful financial picture of Tektronix is gained only by consolidated figures.

The figures on the financial statements are rounded to the nearest thousand dollars.

We hope these explanations will contribute to better understanding, and lead to further clarification.

AUDITORS' OPINION

To the Shareowners of Tektronix, Inc.:

We have examined the statements of consolidated financial position of Tektronix, Inc. and subsidiaries as of May 27, 1978, May 28, 1977, and May 29, 1976 and the related statements of consolidated income and reinvested earnings and of consolidated changes in financial position for each of the five years in the period ended May 27, 1978. Our examinations were made in accordance with generally accepted auditing standards and, accordingly, included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

In our opinion, the accompanying statements present fairly the financial position of the companies as of May 27, 1978, May 28, 1977, and May 29, 1976 and the results of their operations and the changes in their financial position for each of the five years in the period ended May 27, 1978, in conformity with generally accepted accounting principles consistently applied during the period except for the change, with which we concur, in 1975 in the method of costing parent company inventories as described in Note 3 to the financial statements.

Deloitte Haskins + Sells

Portland, Oregon
July 20, 1978

Tektronix Consolidated Income And Reinvested Earnings

(THOUSANDS OF DOLLARS)

1974	1975	1976	1977	1978	
271,428	**336,645**	**366,645**	**454,958**	**598,886**	**NET SALES** Amounts receivable for products sold or rented. Tektronix sold directly to customers in the U.S., and countries in which it has marketing subsidiaries, and to distributors at a discount, for resale.
136,074	**163,638**	**169,275**	**196,055**	**266,474**	**MANUFACTURING COST OF SALES** The cost of materials used in the products sold. Also, the payroll costs of the employees who fabricated and assembled them, their supervisors, those who assisted them, those who devise improved manufacturing methods and those who design and make tools and equipment. Also, the expense of running the manufacturing operations.
135,354	**173,007**	**197,370**	**258,903**	**332,412**	**GROSS PROFIT**
96,957	**122,209**	**139,578**	**182,331**	**238,273**	**OPERATING EXPENSES**
33,811	44,657	51,675	64,045	86,850	SELLING Payroll and commission of sales engineers and employees who assist them, advertising, travel, rent of offices, and other expenses of marketing.
22,573	28,327	29,704	38,657	49,832	ENGINEERING Payroll of engineers, and those who help them design and develop new products and the components to be assembled into them and to improve existing products, plus the cost of materials, supplies, space and related expense.
21,867	26,968	31,666	40,290	53,063	ADMINISTRATIVE Payroll of executives and personnel working on accounting, employment, data processing, facilities and communications functions, and the many expenses related to them.
18,706	22,257	26,533	39,339	48,528	PROFIT SHARING (Note 7).
38,397	**50,798**	**57,792**	**76,572**	**94,139**	**OPERATING INCOME**
1,222	4,766	4,757	4,129	4,246	INTEREST EXPENSE Cost of borrowed money.
1,322	797	2,204	3,303	6,068	NON-OPERATING INCOME Including interest income, earnings of 50% owned companies, net currency fluctuation, amortization of intangibles and charitable contributions.
38,497	**46,829**	**55,239**	**75,746**	**95,961**	**INCOME BEFORE INCOME TAXES**
17,144	**20,500**	**25,150**	**31,775**	**39,115**	**PROVISION FOR INCOME TAXES** (Note 9) Estimated income taxes related to the income of Tektronix, Inc., and its consolidated subsidiaries including U.S. income taxes on dividends that may be repatriated from subsidiaries.
21,353	**26,329**	**30,089**	**43,971**	**56,846**	**EARNINGS** A measure of company performance.
144,140	163,966	188,375	216,307	256,219	REINVESTED EARNINGS AT BEGINNING OF YEAR.
(1,781)	(1,734)	(2,107)	(3,971)	(10,701)	DIVIDENDS Including dividends declared but not paid.
254	(186)	(50)	(88)	—	OTHER
163,966	188,375	216,307	256,219	302,364	REINVESTED EARNINGS AT END OF YEAR.
17,291	**17,344**	**17,547**	**17,628**	**17,808**	**WEIGHTED AVERAGE NUMBER OF COMMON SHARES OUTSTANDING DURING YEAR** (Thousands).
$1.23	$1.52	$1.71	$2.49	$3.19	**EARNINGS PER COMMON SHARE** Dilution if all outstanding share options were exercised would not have reduced primary earnings more than two cents.
$ .10	$ .10	$ .12	$ .22½	$ .60	**DIVIDENDS PER COMMON SHARE** 1978 includes one semi-annual dividend of 24¢ and three quarterly dividends of 12¢, the last of which was paid in July 1978.

The accounting year is the 52 or 53 weeks ending the last Saturday in May.
The accompanying notes are an integral part of these financial statements.

Tektronix Consolidated Financial Position

(THOUSANDS OF DOLLARS)

May 29, 1976	May 28, 1977	May 27, 1978	
248,347	**310,245**	**357,704**	**CURRENT ASSETS** Assets likely to be converted to cash or used in the ordinary operation of the business within one year.
1,273	3,477	2,523	CASH (Note 4) Deposits in banks and in transit.
69,178	91,477	63,685	CASH EARNING INTEREST Bank deposits paying interest and short-term securities.
71,093	88,285	116,338	ACCOUNTS RECEIVABLE Due from customers for sales on credit.
(955)	(993)	(1,238)	ALLOWANCE FOR DOUBTFUL ACCOUNTS
99,145	118,423	163,523	INVENTORIES (Note 3) The cost of products finished but not yet sold, purchased materials and parts to be fabricated and assembled into products; and the materials, payroll costs and other costs accumulated in work-in-process.
8,613	9,576	12,873	PREPAID EXPENSES Payments for supplies and services that have not been used, and for deposits that will be refunded.
60,540	**84,277**	**107,556**	**CURRENT LIABILITIES** Obligations due to be paid within one year.
3,055	5,382	10,351	NOTES PAYABLE (Notes 4 and 6) Borrowed funds due for repayment within one year, including the current portion of long-term indebtedness.
17,776	24,087	30,958	ACCOUNTS PAYABLE Due for materials, services, interest and miscellaneous taxes.
13,565	19,645	18,458	U.S., STATE AND FOREIGN INCOME TAXES Taxes due for payment within one year.
12,895	18,551	22,750	RETIREMENT AND INCENTIVES (Note 7) Due employees and their retirement funds, and provision for stock appreciation rights.
13,249	16,612	22,889	PAYROLL Due employees next payday, for vacations, and for payroll related taxes.
—	—	2,150	DIVIDENDS PAYABLE
187,807	**225,968**	**250,148**	**WORKING CAPITAL** Current Assets minus Current Liabilities.
88,563	**95,375**	**119,533**	**FACILITIES** The cost of buildings and equipment, reduced by depreciation.
75,114	74,574	83,598	BUILDINGS Cost of buildings, parking area, landscaping, and improvements to leased buildings.
71,091	83,461	102,122	MACHINERY AND FURNITURE Cost of furnishings.
(66,682)	(73,852)	(85,160)	ACCUMULATED DEPRECIATION Reduction of value for use, wear and age.
5,916	6,495	6,511	LAND Cost of land used in business.
3,124	4,697	12,462	CONSTRUCTION IN PROGRESS Costs accrued on facilities not yet put into operation.
7,950	**9,708**	**13,893**	**INVESTMENTS AND OTHER LONG-TERM ASSETS** The investment in and advances to 50% owned companies and one half their reinvested earnings. Also included are intangible assets and installments of sale and lease contracts receivable due after one year.
38,601	**39,783**	**37,086**	**LONG-TERM INDEBTEDNESS** (Note 6) The unpaid portion minus payments due within one year of amounts borrowed for more than one year.
—	**3,043**	**3,763**	**OTHER LONG-TERM LIABILITIES**
13,716	**14,103**	**16,029**	**DEFERRED INCOME TAX LIABILITY** (Note 9).
232,003	**274,122**	**326,696**	**SHAREOWNERS' EQUITY** (Notes 5 and 7) The net assets or book value owned by shareowners. This is equal to the assets minus liabilities, and made up of:
15,696	17,903	24,332	COMMON SHARES Received for common shares, less cost of shares repurchased.
216,307	256,219	302,364	REINVESTED EARNINGS The accumulation of earnings reinvested in the business.

The accounting year is the 52 or 53 weeks ending the last Saturday in May.
The accompanying notes are an integral part of these financial statements.

Tektronix Consolidated Changes In Financial Position

(THOUSANDS OF DOLLARS)

1974	1975	1976	1977	1978	
31,497	**39,403**	**44,209**	**58,338**	**70,793**	**WORKING CAPITAL PROVIDED FROM OPERATIONS:**
21,353	26,329	30,089	43,971	56,846	EARNINGS As shown on the INCOME STATEMENT.
7,525	9,388	11,635	12,781	15,294	DEPRECIATION OF FACILITIES The decrease in value of buildings, machinery and furniture resulting from use, wear and age.
(1,051)	(1,043)	(966)	(1,738)	(4,187)	EQUITY IN EARNINGS OF 50% OWNED COMPANIES less cash dividends received. These amounts are added to investment.
3,086	4,385	2,879	388	1,926	DEFERRED INCOME TAXES Amounts not to be paid currently.
584	344	572	2,936	914	OTHER
1,576	**43,600**	**14,266**	**7,008**	**8,673**	**WORKING CAPITAL PROVIDED FROM:**
396	2,418	1,700	2,118	6,429	COMMON SHARES Proceeds from sale of Tektronix, Inc. unissued and treasury shares to employees.
—	29,910	11,307	1,759	—	LONG-TERM INDEBTEDNESS INCURRED.
1,180	11,272	1,259	3,131	2,244	OTHER Includes the depreciated cost of facilities sold and cost of investments sold.
29,541	**37,472**	**24,120**	**27,185**	**55,286**	**WORKING CAPITAL USED FOR:**
23,530	31,706	18,812	22,174	41,697	ADDITIONS TO FACILITIES Cost of land, buildings, machinery and furniture purchased or constructed.
323	712	2,541	577	2,697	REDUCTION OF LONG-TERM INDEBTEDNESS Amounts becoming current liabilities due within one year.
1,781	1,734	2,107	3,971	10,701	DIVIDENDS
3,907	3,320	660	463	191	OTHER Includes acquisition of intangible assets, long term investments in affiliates, receivables and securities, and the cost of Tektronix, Inc. shares acquired.
3,532	**45,531**	**34,355**	**38,161**	**24,180**	**RESULTING INCREASE IN WORKING CAPITAL** Made up of
25,371	**40,670**	**31,273**	**61,897**	**47,459**	**INCREASE (DECREASE) IN CURRENT ASSETS**
(11,819)	17,599	34,179	24,502	(28,746)	CASH AND CASH EARNING INTEREST
10,814	6,039	8,869	17,154	27,808	ACCOUNTS RECEIVABLE—NET
23,820	13,644	(9,748)	19,277	45,100	INVENTORIES
2,556	3,388	(2,027)	964	3,297	PREPAID EXPENSES
21,839	**(4,861)**	**(3,082)**	**23,736**	**23,279**	**INCREASE (DECREASE) IN CURRENT LIABILITIES**
12,596	(10,586)	(9,694)	2,327	4,969	NOTES PAYABLE
8,220	(2,921)	5,473	9,674	15,298	ACCOUNTS PAYABLE AND OTHER CURRENT LIABILITIES
930	4,143	323	5,656	4,199	RETIREMENT AND INCENTIVES
93	4,503	816	6,079	(1,187)	U.S., STATE AND FOREIGN INCOME TAXES
104,389	**107,921**	**153,452**	**187,807**	**225,968**	**WORKING CAPITAL AT BEGINNING OF PERIOD** Plus increase in working capital equals
107,921	**153,452**	**187,807**	**225,968**	**250,148**	**WORKING CAPITAL AT END OF PERIOD** As shown on FINANCIAL POSITION STATEMENT.

The accounting year is the 52 or 53 weeks ending the last Saturday in May.
The accompanying notes are an integral part of these financial statements.

Tektronix, Inc. and Subsidiaries
Notes to Financial Statements

1. SIGNIFICANT ACCOUNTING POLICIES:

Principles of Consolidation — The consolidated financial statements include the accounts of Tektronix, Inc. and its subsidiaries (all are wholly-owned) since dates of organization or acquisition. All material intercompany transactions and balances have been eliminated.

Foreign Currency Translation — Facilities and related depreciation, inventories, and other non-monetary assets of foreign subsidiaries are translated into U.S. dollars at historical rates of exchange. Monetary assets and liabilities are translated at year-end rates of exchange. Income and expenses, other than cost of sales and depreciation, are translated at rates prevailing at the beginning of each four-week accounting period. Translation and exchange gains and losses, including those resulting from foreign currency forward exchange contracts, are in non-operating income (see Note 2).

Inventories — In 1975, the Company adopted the last-in, first-out (LIFO) method of inventory valuation for parent company inventories (see Note 3). Such inventories had previously been stated at the lower of cost, on a first-in, first-out basis (FIFO), or market. Inventories of subsidiaries are stated at the lower of cost, on a first-in, first-out basis, or market.

Facilities and Depreciation — Facilities are carried at cost. Expenditures for maintenance, repairs, and betterments which do not add to the value of the related assets or materially extend their lives are expensed as incurred. Accelerated methods of depreciation are generally used both for financial accounting and tax purposes based on estimated useful lives of the facilities which vary from 10 to 48 years for buildings and grounds and 3 to 15 years for machinery and furniture. Leasehold improvements are amortized on the straight-line basis over the periods of the leases.

Income Taxes — Investment tax credits are accounted for on the "flow-through" method, which recognizes the reduction in tax in the year the related assets are placed in service.

Engineering and Development — Expenditures for plant start-up, engineering, research and development are expensed as they are incurred.

Investments in Joint Venture Companies — Investments in 50%-owned joint venture companies are stated at cost plus the Company's equity in undistributed earnings since dates of organization. All material intercompany profits have been eliminated.

Common Share Data — On March 31, 1977, the Board of Directors declared a two-for-one share split effected in the form of a 100% stock dividend, on the Company's outstanding common shares, effective May 9, 1977. All references to the number of shares and per share amounts in the accompanying financial statements and notes to the financial statements have been adjusted to reflect the share split.

2. FOREIGN SUBSIDIARIES AND 50%-OWNED COMPANIES:

Assets and liabilities of foreign subsidiaries in the following amounts are included in the consolidated financial statements:

May 29, 1976	May 28, 1977	May 27, 1978	
$75,517,482	$88,255,532	$106,097,927	Current assets
12,682,665	13,273,409	15,337,210	Facilities — net
584,277	502,515	888,750	Other assets
15,275,072	21,685,256	32,104,519	Current liabilities
3,666,112	4,831,846	2,222,273	Long-term debt

Earnings of foreign subsidiaries included in the consolidated financial statements were $8,994,473 in 1974, $13,371,253 in 1975, $7,945,738 in 1976, $13,407,540 in 1977 and $16,713,782 in 1978.

Translation and exchange gains (losses) included in other non-operating income were as follows: 1974, $(1,016,161); 1975, $(369,096); 1976, $(859,227); 1977, $(543,644); and 1978, $14,925.

The Company's share of the earnings of 50%-owned companies was $1,087,294 in 1974, $1,076,470 in 1975, $998,102 in 1976, $1,772,663 in 1977, and $4,249,427 in 1978.

3. INVENTORIES AND ACCOUNTING CHANGE:

In 1975, the method of valuing parent company inventories was changed from the first-in, first-out (FIFO) method to the last-in, first-out (LIFO) method because management believes LIFO constitutes a preferable method inasmuch as it more clearly reflects income by matching current costs against current revenues, and thereby minimizes the effects of inventory profits during periods of rising prices. The effect of the change for 1975 was to reduce inventories $6,579,572, earnings $2,224,000, and earnings per share 13¢.

It was not practicable to value the inventory at the end of the prior years on the LIFO method and, therefore, it is not possible to determine the pro-forma results of applying the new valuation method to the prior years and the effect on reinvested earnings at the beginning of the 1975 fiscal year.

Inventories consisted of the following:

May 29, 1976	May 28, 1977	May 27, 1978	
$35,534,485	$36,117,259	$46,977,100	Finished goods
52,043,550	66,011,363	96,503,967	Work-in-process
21,977,342	27,078,407	32,609,302	Purchased materials
(10,409,549)	(10,783,935)	(12,567,205)	LIFO reserve
$99,145,828	$118,423,094	$163,523,164	Total

4. SHORT-TERM NOTES PAYABLE:

The Company has short-term borrowing arrangements with domestic and foreign banks which aggregated $38,500,000 at May 27, 1978, of which approximately $29,000,000 was unused. Average compensating bank balances of 10% are informally required on $10,000,000 of such arrangements.

The May 27, 1978 balance of notes payable bears interest at an average rate of 9.75%. Average borrowings during the year, based on period-end balances, were $6,941,000 at an approximate weighted average interest rate of 9.2%. Maximum period-end aggregate short-term borrowings during the year were $10,494,000. During the years ended May 29, 1976 and May 28, 1977, average borrowings were $7,586,000 and $4,269,000, respectively, at average interest rates of 10.3% and 9.9%.

5. SHAREOWNERS' EQUITY:

Authorized capital at May 27, 1978 consists of 40,000,000 common shares without par value. Issued and outstanding shares are as follows:

May 29, 1976	May 28, 1977	May 27, 1978	
17,585,131	17,675,607	17,913,273	Issued
311	311	311	Held in Treasury
17,584,820	17,675,296	17,912,962	Outstanding

In connection with the two-for-one share split declared on March 31, 1977, $88,299 was transferred to the common share account from reinvested earnings.

During the years ended May 28, 1977 and May 27, 1978, the common share account was increased $2,118,479 and $6,428,867, respectively, for the issuance of 90,476 shares in 1977 and 237,666 shares in 1978 under employee stock option and share purchase plans.

6. LONG-TERM INDEBTEDNESS:

May 29, 1976	May 28, 1977	May 27, 1978	
$35,000,000	$35,000,000	$35,000,000	(A) 8-7/8% Notes due 5-15-83
(214,385)	(183,770)	(153,155)	Unamortized discount on (A)
1,764,000	1,717,500		(B) Revolving credit note
2,203,760	3,555,448	3,029,124	(C) Term notes
322,122	348,252	192,173	(D) Mortgage note
63,551	18,842	16,660	Other
39,139,048	40,456,272	38,084,802	Total
537,964	673,688	999,024	Less current maturities
$38,601,084	$39,782,584	$37,085,778	Long-term indebtedness-net

(A) The 8⅞% Notes may be redeemed at any time on or after November 15, 1981, at the option of the Company, at the principal amount together with accrued interest. The Indenture relating to the Notes contains certain limitations on the amount of additional indebtedness which the Company may incur.

(B) The revolving credit note, repayable in Pounds Sterling, was paid in November 1977.

(C) The term notes are repayable in French Francs and Canadian Dollars and are due through 1982 in annual installments ranging from $502,000 to $957,000. Interest rates range from 9.2% to 11.5%.

(D) The mortgage note payable is due in annual installments of $41,900, plus interest at 4½%. Facilities with an original cost of $1,500,000 are pledged as collateral. The note is repayable in Dutch Guilders.

Aggregate long-term debt principal payments for each of the next five years from May 27, 1978 will be as follows: 1979, $999,000; 1980, $941,000; 1981, $627,000; 1982, $516,000; and 1983, $34,994,000.

7. RETIREMENT AND INCENTIVE PLANS:

Profit-Sharing — Most permanent employees receive cash and deferral profit share amounting to 27½% of income of participating companies before income taxes, profit-sharing, charitable contributions, and executive incentive compensation. Additional profit share of 7½% is contributed to a retirement trust for parent company employees. In lieu of retirement profit-sharing, most subsidiary companies have various governmental and privately insured pension plans.

Pension — Effective December 1, 1974, the parent company adopted a pension plan for its employees to augment the benefits of its retirement profit-sharing plan. The Company's policy is to accrue as pension expense the normal actuarial cost for the year plus amortization of all unfunded actuarial liabilities by the declining balance method using approximately a 20 year life. Charges to payroll expense for the period from plan adoption to May 31, 1975 were $2,450,000 and for the years ended May 29, 1976, May 28, 1977 and May 27, 1978 were $4,968,000, $5,569,000 and $5,714,000, respectively. Pension plan benefits are integrated with Social Security benefits. The unfunded past service liability has increased from approximately $26,000,000 at May 28, 1977 to approximately $37,000,000 at May 27, 1978, due principally to recent amendments in the Social Security law. Vested benefits exceeded fund assets by approximately $1,800,000 at May 27, 1978.

Incentive — In November 1974, the Company adopted an Earnings Per Share Growth Plan to provide incentive compensation for executives. The plan provides for compensation based on the improvement in earnings per share over a three-year period. Charges under the plan are included in profit share expense and amounted to $100,000 for 1975, $450,000 for 1976, $2,493,000 for 1977, and $737,000 for 1978. The expense for 1975 and 1976 relates to awards covering the three-year period ended in 1977; the expense for 1977 and 1978 relates to those awards and to a greater number of awards to an increased number of executives covering the three-year period ending in 1979.

Employee Share Purchase — Under an Employee Share Purchase Plan, 282,081 common shares of the Company were reserved at May 27, 1978 (375,434 at May 28, 1977). During the year ended May 27, 1978, 93,353 shares, with a market value of $3,439,675, were issued for $2,751,613 (26,628 shares with a market value of $811,347 were issued for $660,152 in the prior year). The share purchase discount provided in the plan has been charged to income.

Qualified Stock Options — Under qualified stock option plans for employees, 217,724 common shares of the Company were reserved at May 27, 1978. Shares available for options not yet granted were 13,494 at May 27, 1978 (11,694 shares at May 28, 1977). The plans provide that the option price shall not be less than 100% of the fair market value of the shares on the date of grant and that the options are exercisable in four cumulative annual installments beginning one year after the date of grant.

At May 27, 1978, options to purchase 204,230 shares were outstanding for which the option price, ranging from $12.13 to $32.33 per share, amounted to $3,421,332 and options to purchase 91,483 shares were exercisable, for which the option price amounted to $1,502,057. During the year then ended, options became exercisable for 117,053 shares at option prices per share ranging from $12.13 to $32.33 with market prices per share at date exercisable ranging from $33.95 to $41.50. Options were exercised for 138,313 shares at option prices per share ranging from $11.02 to $30.05 and market prices per share at date of exercise ranging from $32.85 to $42.10.

Option and market prices for options which became exercisable and for options which were exercised in the five years ended May 27, 1978 were:

Year	Options Which Became Exercisable		Options Exercised	
	Option Price	Market Price	Option Price	Market Price
1978	$1,937,707	$4,260,597	$2,916,067	$5,013,856
1977	1,500,420	2,395,637	1,246,194	1,867,974
1976	1,364,135	1,386,807	1,519,564	2,532,983
1975	3,872,652	4,544,819	2,200,123	2,626,826
1974	3,028,478	2,984,354	231,072	342,324

Non-Qualified Stock Options — In September 1977, the Company reserved an additional 500,000 common shares under the non-qualified stock option plan for employees and at May 27, 1978, 679,000 common shares were reserved under the plan. Shares available for options not yet granted amounted to 509,500 at May 27, 1978 (125,000 shares at May 28, 1977). The plan provides that the option price must be at least 85% of the fair market value of the shares on the date of grant and that the options are exercisable in four cumulative annual installments beginning one year after the date of grant and expire ten years after the date of grant. Through May 27, 1978, all options granted under the plan have been equal to 100% of the fair market value of the shares at dates of grant.

Also in September 1977, the non-qualified stock option plan was amended to grant stock appreciation rights to optionees under the plan. These rights allow the optionee to surrender all or part of an option and to obtain payment or shares in an amount equal to the difference between the aggregate exercise price of the surrendered option and the fair market value of the shares subject to the option on the exercise date. The stock appreciation rights are exercisable at the same times and to the same extent as the options to which they relate.

At May 27, 1978, options to purchase 169,000 shares were outstanding for which the option price, ranging from $12.13 to $37.00 per share, amounted to $4,892,013 and options to purchase 34,250 shares were exercisable, for which the option price amounted to $436,538. During the year then ended, options became exercisable for 18,250 shares at option prices per share ranging from $12.19 to $18.58 with market prices per share at date exercisable ranging from $36.25 to $37.00. Options were exercised for 6,000 shares at an option price per share of $12.19 and a market price per share at date of exercise of $37.20. Options for 8,000 shares, at an option price of $12.19 per share, were surrendered through exercise of stock appreciation rights. Cash payments of $194,874 for options surrendered, based upon market values ranging from $36.13 to $37.25 per share, are included in profit share expense. In addition, the Company has accrued and included in profit share expense $1,972,737 representing appreciation of market value ($40.50 at May 27, 1978) over the option price of options outstanding.

Option and market prices for options which became exercisable and for options which were exercised through issuance of shares in the three years ended May 27, 1978, were:

Year	Options Which Became Exercisable		Options Exercised	
	Option Price	Market Price	Option Price	Market Price
1978	$231,988	$672,475	$73,125	$223,200
1977	231,988	541,525	60,938	159,700
1976	228,500	325,313	24,375	41,975

8. COMMITMENTS:

The companies are committed under building and equipment leases, which are accounted for as operating leases, in the aggregate amount of $15,260,000 payable $4,543,000 in 1979, $3,415,000 in 1980, $2,198,000 in 1981, $1,505,000 in 1982, $1,293,000 in 1983 and $2,306,000 thereafter. Recording of those leases meeting the criteria of capital leases would not have a material effect on the consolidated financial statements.

Rental expense charged to income, including short-term leases, was $2,719,000 in 1974, $4,678,000 in 1975, $4,976,000 in 1976, $5,505,000 in 1977 and $5,699,000 in 1978.

At May 27, 1978, contractual commitments under construction programs for additional plant facilities approximated $9,500,000.

9. INCOME TAXES:

The provisions for income taxes for the five years ended May 27, 1978 consist of the following (in thousands):

1974	1975	1976	1977	1978	
$11,600	$12,400	$17,894	$21,837	$28,342	United States
1,400	1,625	2,095	3,050	3,855	State
4,144	6,475	5,161	6,888	6,918	Foreign
$17,144	$20,500	$25,150	$31,775	$39,115	Provision for income taxes

The above provisions were less than the amounts which would result by applying the United States statutory rate of 48% to income before income taxes. A reconciliation of the differences is as follows (in thousands):

1974	1975	1976	1977	1978	
$18,478	$22,478	$26,515	$36,358	$46,061	Computed income taxes based on 48% rate
(2,257)	(3,269)	(706)	(3,067)	(4,591)	Effect of foreign subsidiary earnings taxed below 48%
(522)	(517)	(479)	(851)	(2,040)	Tax effect of equity in current earnings of 50%-owned Companies
(1,717)	1,225				Provisions for (reversal of) deferred income taxes on undistributed earnings of foreign subsidiaries
2,814					Provision for deferred income taxes of DISCs relating to years prior to 1974
721	845	1,090	1,655	2,013	State income taxes, net of United States income tax benefit
(564)	(1,099)	(957)	(991)	(1,926)	Investment tax credit
191	837	(313)	(1,329)	(402)	Other—net
$17,144	$20,500	$25,150	$31,775	$39,115	Provision for income taxes

In the year ended May 25, 1974, the Company restored to income $1,717,064 of prior provisions for United States deferred income taxes on undistributed earnings of foreign subsidiaries, due primarily to the removal of dividend repatriation requirements which existed under previous regulations of the Office of Foreign Direct Investments. Also in 1974, the Company made provision for $4,802,902 of deferred income taxes (which included $2,814,000 relating to years prior to 1974) due to legislative uncertainty regarding indefinite deferral of taxation of the undistributed earnings of its Domestic International Sales Corporations (DISCs). The provision represented the tax effect of the accumulated undistributed earnings of the DISCs, including transfers to one DISC from the Company's Export Trade Corporation subsidiary.

Undistributed reinvested earnings of foreign subsidiaries and DISCs amounted to approximately $121,000,000 at May 27, 1978. Except for accumulated deferred income tax provisions of $18,205,000 (primarily related to DISCs) relating to approximately $42,700,000 of such reinvested earnings, no provision has been made for additional United States income taxes which could result from the transfer of undistributed earnings to Tektronix, Inc., because the Company has no present intention of transferring such earnings. If the undistributed earnings were to be transferred to Tektronix, Inc., foreign tax credits would be available to partially offset the amount of United States income taxes otherwise payable.

Equity in undistributed earnings of 50%-owned companies amounted to approximately $11,605,000 at May 27, 1978. No provision has been made for United States income taxes which could result from the transfer of such earnings to Tektronix, Inc., because foreign tax credits would be available to offset the amount of United States income taxes otherwise payable.

Deferred income taxes included in the provisions for United States income taxes are as follows (in thousands):

1974	1975	1976	1977	1978	
$(1,717)	$1,225				On undistributed earnings of foreign subsidiaries
4,803	3,160	$3,202	$ 1,587	$2,340	On undistributed earnings of DISCs
		(428)	(1,199)	(414)	Other
$ 3,086	$4,385	$2,774	$ 388	$1,926	Provision for deferred income taxes

10. GEOGRAPHIC SEGMENT DATA:

Tektronix operates predominately in a single industry segment, the manufacture and sale of electronic measurement and display instruments used in commercial, scientific, and industrial activities. Information concerning United States, European, and other operations follows (in thousands):

United States	Europe	Other	Eliminations	Total	
$413,414	$160,663	$ 24,809		$598,886	Sales to unaffiliated customers
107,590	2,580		$(110,170)		Transfers between geographic areas
$521,004	$163,243	$ 24,809	$(110,170)	$598,886	Total revenue
$ 79,952	$ 21,374	$ 578	$ (3,496)	$ 98,408	Operating income
				(4,269)	General corporate expenses
				4,249	Equity in earnings of 50%-owned companies
				(4,246)	Interest expense
				1,819	Non-operating income
				$ 95,961	Income before income taxes
$324,657	$ 85,942	$ 9,720	$ (5,026)	$415,293	Identifiable assets at May 27, 1978
				12,152	Investment in 50%-owned companies
				63,685	Corporate cash earning interest
				$491,130	Total assets

Inter-area sales of products and services are generally made at arms-length prices between the various geographic segments. The profit on sales between geographic areas (primarily on products manufactured in the United States) is not recognized by the manufacturer until sales are made to unaffiliated customers. The geographic classification of sales is based upon the location of the seller as required by the Statement of Financial Accounting Standard No. 14. The classification of sales as reported elsewhere in this report is based upon the location of the purchaser (United States or International).

Operating income includes all directly incurred and allocable costs, except identified corporate expenses.

Identifiable assets are those which are specifically associated with the operations of each geographic segment.

Net sales to U.S. government agencies, foreign government agencies and export sales to unaffiliated customers did not separately total as much as 10% of consolidated net sales.

Companies in which Tektronix owns a 50% interest operate predominantly in the same single industry segment as Tektronix, and are concentrated geographically in Japan.

11. REPLACEMENT COST INFORMATION (UNAUDITED):

The following replacement cost information for Tektronix, Inc. and its subsidiaries has been prepared in accordance with the requirements of the Securities and Exchange Commission. This information should not be interpreted to indicate that Tektronix has present plans to replace its productive capacity or that actual replacement would take place in the manner assumed in developing the information. Although the replacement cost of facilities is higher than the historical cost, it should be noted that such costs might be somewhat offset by improved productivity of the new assets. Furthermore, the calculations do not give recognition to the effect of price increases which would normally follow cost increases. The imprecise assumptions in the computations, therefore, should cause the users of such data to proceed with caution in making any business judgements from it.

In 1977, the replacement cost of productive capacity was estimated by comparing recently experienced plant construction costs, engineering estimates, and vendor prices with government price indexes. Since they compared with only minimal differences the replacement cost was calculated by applying the appropriate indexes to historical cost data. This year, the same indexes, adjusted to current prices, were used.

Depreciation for replacement cost purposes was calculated using the straight-line method to the historical depreciation periods currently in use.

Replacement cost of inventories is based on pricing year-end inventories at cost, on a first-in, first-out basis, which approximates replacement cost for such inventories.

Since only subsidiary inventories are not based on the last-in, first-out (LIFO) method, the cost of products sold by the subsidiaries was increased by using the indexes of price changes applied to the inventory turnover to determine the cost of sales adjustment.

The estimated replacement cost data for 1977 and 1978 and their historical cost equivalents are as follows (in thousands):

1977		1978		
Estimated Replacement Cost	Comparable Historical Cost	Estimated Replacement Cost	Comparable Historical Cost	
$129,500	$118,423	$ 176,300	$163,523	Inventories
$231,200	$153,553	$ 276,200	$180,427	Facilities
(92,600)	(72,155)	(111,500)	(83,163)	Less accumulated depreciation
$138,600	$ 81,398	$ 164,700	$ 97,264	Facilities — net
$196,300	$195,281	$ 266,200	$265,493	Manufacturing cost of sales
$ 2,800	$ 2,323	$ 4,300	$ 3,491	Depreciation in manufacturing cost of sales above
10,700	9,603	12,200	10,732	Other depreciation
$ 13,500	$ 11,926	$ 16,500	$ 14,223	Total depreciation

The following table reconciles the 1978 historical cost amounts for which replacement cost data are provided to the related totals shown in the consolidated financial statements (in thousands):

Inventories	Facilities	Accumulated Depreciation	Manufacturing Cost of Sales	Depreciation	
$163,523	$204,693	$85,160	$266,474	$15,294	Totals as shown in the accompanying consolidated financial statements
					Less amounts for which replacement cost data have not been provided at cost:
	(6,511)				Land
	(12,462)				Construction in progress
	(4,414)	(1,676)	(981)	(981)	Rental instruments
	(782)	(321)		(90)	Leasehold improvements
	(97)				Other
$163,523	$180,427	$83,163	$265,493	$14,223	Historical amounts for which replacement cost data have been provided

12. QUARTERLY FINANCIAL INFORMATION (UNAUDITED):

The following is selected quarterly financial data for 1977 and 1978. In the opinion of management, the quarterly data includes all adjustments necessary to present fairly the results of operations for the periods presented (in thousands except Earnings per Share).

Quarter Ended	Net Sales	Gross Profit	Income before Income Taxes	Earnings	Earnings Per Share
1978:					
August 20, 1977	$120,412	$ 68,104	$21,543	$11,958	$ .67
November 12, 1977	140,287	76,813	23,870	13,570	.76
March 4, 1978	178,345	96,862	26,431	16,651	.93
May 27, 1978	159,842	90,633	24,117	14,667	.83
	$598,886	$332,412	$95,961	$56,846	$3.19
1977:					
August 21, 1976	$ 89,543	$ 51,167	$15,656	$ 8,419	$ .48
November 13, 1976	100,007	55,399	16,146	8,722	.49
March 5, 1977	140,100	78,794	22,763	12,658	.72
May 28, 1977	125,308	73,543	21,181	14,172	.80
	$454,958	$258,903	$75,746	$43,971	$2.49

The quarters ended March 4, 1978 and March 5, 1977 consist of sixteen week periods; all other quarters consist of twelve week periods.

Tektronix International Facilities

Tektronix Export Corporation, Beaverton, Oregon— A Domestic International Sales Corporation

MANUFACTURING COMPANIES

Tektronix Guernsey Limited, Guernsey;
Tektronix Holland N.V., Heerenveen, The Netherlands;
Tektronix U.K. Ltd., London, England—Telequipment instruments;
SONY/Tektronix Corporation, Tokyo and Gotemba, Japan—Serving Japan.

MARKETING COMPANIES

Australia— Tektronix Australia Pty. Limited, Sydney, Melbourne, Adelaide and Perth;
Austria, Rohde & Schwarz-Tektronix GmbH, Vienna;
Belgium— Tektronix S.A., Brussels;
Brazil— Tektronix Industria e Comercio Ltda., Rio de Janeiro and Sao Paulo;
Canada— Tektronix Canada Ltd., Montreal, Toronto (Barrie), Ottawa, Calgary, Vancouver, Dartmouth, Edmonton and Winnipeg;
Denmark— Tektronix A/S, Copenhagen;
Finland— Tektronix Oy, Helsinki;
France— Tektronix, Paris, Toulouse, Lyons, Rennes, Strasbourg and Aix-en-Provence;
Japan— SONY/Tektronix Corporation, Tokyo, Osaka, Nagoya and Fukuoka;
Norway— Tektronix Norge A/S, Oslo;
Republic of Ireland— Branch of Tektronix U.K. Ltd., Dublin;
Sweden— Tektronix A.B., Stockholm and Gothenburg;
Switzerland— Tektronix International A.G., Zug and Geneva;
The Netherlands— Tektronix Holland N.V., Badhoevedorp;
United Kingdom— Tektronix U.K. Ltd., Harpenden, Maidenhead, Manchester, Scotland.

MARKETING REPRESENTATIVES
Serviced by Tektronix, Inc., Beaverton.

Argentina, Coasin S.A., Buenos Aires, Cordoba, Rosario;
Chile, Equipos Industriales, S.A.C.I., Santiago;
Colombia, Selectronica, Ltda., Bogota;
Ecuador, Proteco Coasin Cia. Ltda., Quito;
Hong Kong, Gilman & Co., Ltd.;
India, Hinditron Services Private Limited, Bombay, Bangalore;
Indonesia, P.T. United Dico-Citas Co. Ltd., Jakarta;
Korea, M-C International, Seoul;
Malaysia, Mecomb Malaysia Sdn. Bhd., Selangor;
Mexico, Tecnicos Argostal S.A., Mexico D.F., Monterrey, Guadalajara;
New Zealand, W & K McLean, Ltd., Auckland, Wellington, Christchurch;
Pakistan, Pak-Land Corporation, Karachi;
Peru, IRE Ingenieros, Lima;
Panama, Executive Marketing Corp., Panama;
Philippines, Philippine Electronics Industries, Rizal;
Singapore, Mechanical & Combustion Engineering Co., Ltd., Singapore;
Sri Lanka, Maurice Roche Ltd., Colombo;
Suriname, Wong Song Tsoi Co., Parimaribo;
Taiwan, Heighten Trading Co., Ltd., Taipei;
Thailand, G. Simon Radio Company Ltd., Bangkok;
Uruguay, Coasin Uruguaya S.A., Montevideo;
Venezuela, Equilab, Caracas.

MARKETING REPRESENTATIVES
Serviced by Tektronix Limited, Guernsey, Channel Islands, and Tektronix Datatek, Badhoevedorp, The Netherlands.

***Egypt,** Giza Systems Engineering Co., Cairo;
Federal Republic of Germany, Rohde & Schwarz Vertriebs-GmbH, Cologne, Hamburg, Munich, Karlsruhe, Stuttgart and Nuremberg;
West Berlin, Rohde & Schwarz Handels-GmbH;
Greece, Marios Dalleggio Representations, Athens and Thessaloniki;
***Iran,** Irantronics Co. Ltd., Tehran;
***Iraq,** Al Manar Engineering WLL, Baghdad;
Israel, Eastronics Limited, Tel Aviv;
Italy, Silverstar Ltd., Milan, Rome, Turin;
Ivory Coast, Sitel, Abidjan;
***Kenya,** Engineering & Sales Co. Ltd., Nairobi;
***Kuwait,** Tareq Co.
Lebanon, Projects S.A.L., Beirut;
Morocco, SCRM, Casablanca;
***Nigeria,** Mofat Engineering Co. Ltd., Lagos, Ibadan;
Portugal, Equipamentos de Laboratorio Lda., Lisbon;
Republic of South Africa, Protea Physical & Nuclear Instrumentation (Pty) Ltd., Bramley, Cape Town, Durban;
Saudi Arabia, Electronic Equipment Marketing Establishment, Riyadh;
Spain, C. R. Mares, S.A., Barcelona, Madrid;
***Syria,** General Trading Company, Damascus;
***Sudan,** Cine & Photo Supply Co., Khartoum;
***Tanzania,** Engineering & Sales Co., Ltd., Nairobi, Kenya;
Tunisia, El Eslek, Tunis;
Turkey, Erkman Elektronik Aletter, Istanbul;
***Uganda,** Engineering & Sales Co., Ltd., Nairobi, Kenya;
United Arab Emirates, Tareq Co., Kuwait;
***West Africa,** Sitel, Ivory Coast;
Zambia, Baird & Tatlock (Zambia) Ltd., Ndola, Lusaka.

*Does not include Information Display products.

Tektronix United States Facilities

UNITED STATES

Tektronix, Inc., Beaverton, Oregon— Headquarters and Main Plant

FIELD OFFICES

*Albany, N.Y.
*Albuquerque, N.M.
*Atlanta, Ga.
*Baltimore, Md.
*Boston, Mass.
*Chicago, Ill.
*Cleveland, Ohio
*Concord, Calif.
*Dallas, Texas
*Dayton, Ohio
*Denver, Colo.
*Detroit, Mich.
*Fort Lauderdale, Fla.
*Hampton, Va.
*Honolulu, Hawaii
*Houston, Texas
*Huntsville, Ala.
*Indianapolis, Ind.
*Irvine, Calif.
*Kansas City, Kan.
*Knoxville, Tenn.
*Long Island, N.Y.
*Los Angeles, Calif.
*Milford, Conn.
*New Orleans, La.
*Oklahoma City, Okla.
*Orlando, Fla.
*Pensacola, Fla.
*Philadelphia, Pa.
*Phoenix, Ariz.
*Pittsburgh, Pa.
Portland, Ore.
*Poughkeepsie, N.Y.
*Raleigh, N.C.
*Rochester, N.Y.
*Rockville, Md.
*St. Louis, Mo.
*St. Paul, Minn.
*Salt Lake City, Utah
*San Antonio, Texas
*San Diego, Calif.
*Santa Clara, Calif.
*Seattle, Wash.
*Syracuse, N.Y.
*Woodbridge, N.J.

*Includes Service Center

TEKTRONIX UNITED STATES SUBSIDIARY

The Grass Valley Group, Inc., Grass Valley, California— Headquarters and Main Plant

FIELD OFFICES

Atlanta, Ga.
Elkhart, Ind.
Long Island, N.Y.
Mabank, Texas
Sherman Oaks, Calif.

Tektronix Consolidated Financial Statistics

(DOLLARS, SHARES AND SQUARE FEET IN THOUSANDS)

1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	Fiscal year or year end
151,011	**168,939**	**149,442**	**167,482**	**202,855**	**271,428**	**336,645**	**366,645**	**454,958**	**598,886**	**NET SALES**
100,302	107,007	86,816	101,310	122,137	155,764	196,323	217,931	284,527	381,465	United States
50,709	61,932	62,626	66,172	80,718	115,664	140,322	148,714	170,431	217,421	International
14,572	**15,005**	**9,904**	**11,764**	**16,739**	**21,353**	**26,329**	**30,089**	**43,971**	**56,846**	**EARNINGS**
$.86	$.88	$.58	$.69	$.97	$1.23	$1.52	$1.71	$2.49	$3.19	*Per Share
9.7%	8.9%	6.6%	7.0%	8.3%	7.9%	7.8%	8.2%	9.7%	9.5%	% of Sales
14.5%	13.0%	7.8%	8.5%	10.8%	12.2%	13.0%	13.0%	16.0%	17.4%	% of Year-end Equity
26,379	**26,398**	**16,806**	**21,008**	**30,479**	**38,497**	**46,829**	**55,239**	**75,746**	**95,961**	**INCOME BEFORE TAXES**
17.5%	15.6%	11.2%	12.5%	15.0%	14.2%	13.9%	15.1%	16.6%	16.0%	% of Sales
44.6%	43.2%	41.1%	44.0%	45.1%	44.5%	43.8%	45.5%	41.9%	40.8%	Effective Income Tax Rate
157,000	**169,000**	**145,000**	**174,000**	**232,000**	**297,000**	**329,000**	**376,000**	**513,000**	**650,000**	**ORDERS RECEIVED**
19,000	**19,000**	**15,000**	**21,000**	**53,000**	**74,000**	**61,000**	**70,000**	**128,000**	**179,000**	**Unfilled Customer Orders**
8,813	**9,957**	**9,091**	**8,334**	**10,580**	**12,693**	**12,664**	**12,970**	**14,637**	**19,147**	**Number of Employees**
17.1	17.0	16.4	20.1	19.2	21.4	26.6	28.3	31.1	31.3	Sales per Employee
49,214	**60,281**	**56,338**	**58,609**	**70,949**	**94,258**	**116,511**	**121,404**	**150,106**	**202,722**	**PAYROLL BEFORE PROFIT SHARE**
13,360	**13,144**	**8,275**	**10,462**	**14,875**	**18,706**	**22,257**	**26,533**	**39,339**	**48,528**	**PROFIT SHARE**
1,813	2,111	2,329	2,429	2,612	2,940	3,420	3,705	3,906	3,987	Facilities in Use (Sq. Ft.)
83.3	80.0	64.2	69.0	77.7	92.3	98.4	99.0	116.5	150.2	Sales per 1000 Square Feet
59,256	**76,146**	**81,381**	**84,947**	**89,681**	**111,302**	**140,288**	**155,245**	**169,227**	**204,693**	**COST OF FACILITIES**
12,269	**17,289**	**6,047**	**4,915**	**7,075**	**23,530**	**31,706**	**18,812**	**22,174**	**41,697**	**INVESTED IN FACILITIES**
3,870	**4,904**	**5,898**	**6,394**	**6,834**	**7,525**	**9,388**	**11,635**	**12,781**	**15,294**	**DEPRECIATION**
22,348	**26,789**	**32,140**	**37,726**	**43,514**	**49,947**	**57,668**	**66,682**	**73,852**	**85,160**	**ACCUMULATED DEPRECIATION**
127,813	**155,619**	**157,808**	**173,743**	**206,599**	**251,061**	**306,616**	**344,860**	**415,328**	**491,130**	**TOTAL ASSETS**
27,428	**29,165**	**27,113**	**32,833**	**44,417**	**55,230**	**61,269**	**70,138**	**87,292**	**115,100**	**ACCOUNTS RECEIVABLE**
40,027	**57,051**	**61,158**	**54,918**	**71,429**	**95,249**	**108,893**	**99,145**	**118,423**	**163,523**	**INVENTORIES**
86,728	**101,506**	**101,991**	**120,539**	**151,033**	**176,405**	**217,075**	**248,347**	**310,245**	**357,704**	**CURRENT ASSETS**
27,042	**38,674**	**28,963**	**31,802**	**46,644**	**68,484**	**63,623**	**60,540**	**84,277**	**107,556**	**CURRENT LIABILITIES**
59,686	**62,832**	**73,028**	**88,737**	**104,389**	**107,921**	**153,452**	**187,807**	**225,968**	**250,148**	**WORKING CAPITAL**
353	**306**	**1,732**	**1,120**	**959**	**637**	**29,835**	**38,601**	**39,783**	**37,086**	**LONG-TERM INDEBTEDNESS**
17,110	17,144	17,176	17,204	17,302	17,302	17,458	17,585	17,675	17,913	*Year-end Shares Outstanding
100,297	**115,841**	**126,338**	**138,488**	**155,630**	**175,488**	**202,321**	**232,003**	**274,122**	**326,696**	**SHAREOWNERS' EQUITY**
7,751	**8,309**	**8,871**	**9,302**	**11,490**	**11,522**	**13,946**	**15,696**	**17,903**	**24,332**	**COMMON-SHARE CAPITAL**
92,546	**107,532**	**117,467**	**129,186**	**144,140**	**163,966**	**188,375**	**216,307**	**256,219**	**302,364**	**REINVESTED EARNINGS**

*Adjusted for 2-for-1 share split effective May 9, 1977.

BOARD OF DIRECTORS

HOWARD VOLLUM, *Chairman of the Board*
PAUL L. BOLEY, *Partner, Davies, Biggs, Strayer, Stoel and Boley*
JAMES B. CASTLES, *Secretary and General Counsel*
JOHN D. GRAY, *Chairman of the Board, Omark Industries, Inc.*
LOUIS B. PERRY, *President, Standard Insurance Company*
EARL WANTLAND, *President and Chief Executive Officer*
FRANK M. WARREN, *Chairman of the Board, Portland General Electric Co.*

OFFICERS

HOWARD VOLLUM, *Chairman of the Board*
EARL WANTLAND, *President and Chief Executive Officer*
LESLIE F. STEVENS, *Group Vice President—Finance*
LEWIS C. KASCH, *Group Vice President*
LAWRENCE L. MAYHEW, *Group Vice President*
WILLIAM J. POLITS, *Group Vice President*
WILLIAM D. WALKER, *Group Vice President*
LARRY N. CHORUBY, *Vice President*
FRANCIS DOYLE, *Vice President*
DON A. ELLIS, *Vice President*
JOHN L. LANDIS, *Vice President*
WILLEM B. VELSINK, *Vice President*
JAMES B. CASTLES, *Secretary and General Counsel*
KENNETH H. KNOX, *Treasurer*
ELWELL E. SWANSON, *Controller and Assistant Secretary*
N. ERIC JORGENSEN, *Assistant Secretary*
R. ALLAN LEEDY, JR., *Assistant Secretary*

SHAREOWNERS' MEETING

The annual meeting of shareowners of Tektronix, Inc., will be held on Saturday, September 23, 1978, at 9 a.m. Pacific Daylight Time, in the Assembly Cafeteria Building, S.W. Karl Braun Drive, Tektronix Industrial Park, near Beaverton, Oregon.

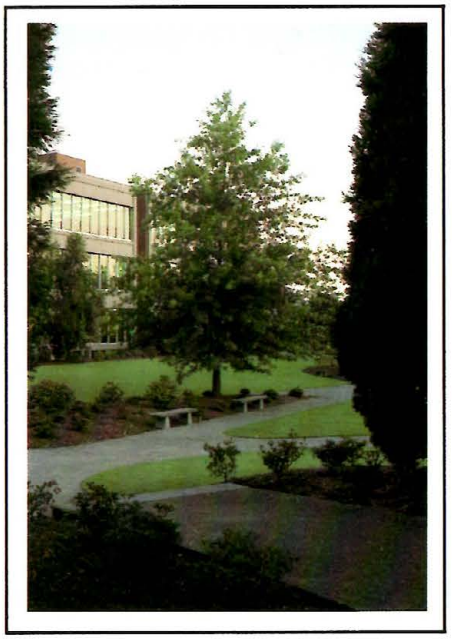
Transfer Agents
United States National Bank
of Oregon, Portland, Oregon

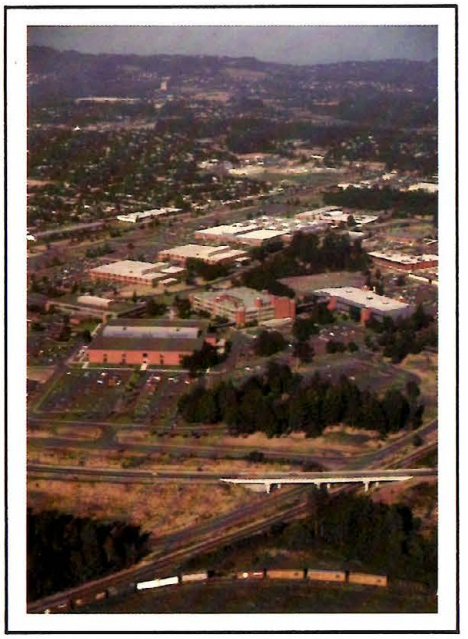
Morgan Guaranty Trust
Company of New York
New York, New York

Registrars
First National Bank
of Oregon,
Portland, Oregon

Citibank, N.A.
New York, New York

Mailing Address:
TEKTRONIX, INC., Beaverton, Oregon 97077
Telephone (503) 644-0161





Tektronix®
COMMITTED TO EXCELLENCE