

The terminal
of the future.
At a price
out of the past.



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Tektronix 4006-1

 **LOW COST**



Graphics:

Low-cost graphics. Plus graphing. From the graphics leader. Tektronix leads the field in reliable, low-cost graphics. Information capacity is second to none. The 1024 X by 780 Y viewable points on the new 4006-1 can out-graph any other low-cost "graphic" terminal. And its screen capacity of 2590 A/N characters challenges most mere alphanumeric CRT's.

The 4006-1: you can plan on it now. Plan. Test. Search. Instruct. End piles of paper printout. Close the gap between output and useable reports. Enhance interactivity between people and departments. The new 4006-1 offers full graphics capability. Dependable Tektronix peripherals like the 4631 Hard Copy Unit with 8½" x 11" copies, and the 4923 Digital Cartridge Tape Recorder.

Simultaneously, we've introduced our Interactive Graphing Package, new conversational software that complements the versatility and value of the 4006-1 hardware. It's a software package that extends the sphere of programmer and non-programmer alike.

The 4006-1 connects readily with most mainframes, thanks to proven interfaces, tested and proven software. It can work in configuration with scores of other terminals in dozens of other departments.

Forecast/Plan



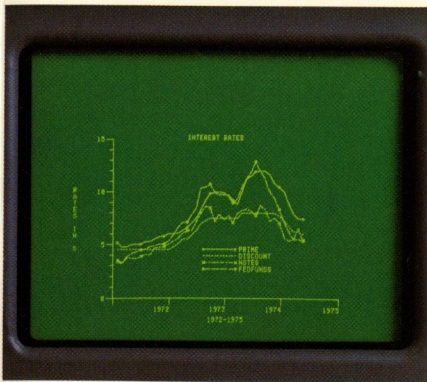
It took the computer to liberate fortune-telling from fairy tales.

Today, forecasting is indispensable, but its results are only as good as its data base.

Graphics has made the results of forecasting more fit for human consumption. But it is the 4006-1 that can bring the future into sharper focus for greater numbers of people. Its revolutionary low cost makes graphics advantageous for areas previously confined to alphanumerics; and that, in turn, helps expand the data base from which models can be made and variables predicted.

A company's controller, for example, can use the 4006-1 to model the coming year, then introduce variables—increased salary costs, new acquisitions, and so on—and graphically display the rise and fall of the bottom line. The corporate planner can borrow that same balance sheet model, and project it years into the future to establish a clear vision of long-range probabilities.

Enter the product manager. His 4006-1 can spell out the potential of each new product—then draw it out as demand curves, as demand vs. advertising costs, as the rise of market share. He can draw upon the controller's balance sheet model to time price changes and determine break-even points.

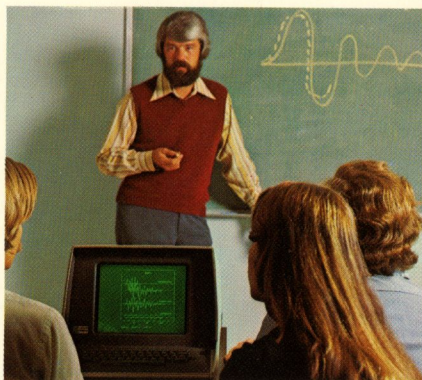


Marketing research can give-and-take with other departments in predicting effects of changing consumer income, attitudes and needs. They can set strategies against competition and play off those strategies on-screen.

But the power of the 4006-1 doesn't stop at the corporate level: it is an ideal instructional tool in educational environments. Its low-cost, high-resolution graphics shed new light on sophisticated modeling techniques, variable overlays, econometric approaches, and much more. From the physical sciences through the engineering school, modeling and planning applications spring to life in graphics. With 4006-1 interactivity, students learn to read between the lines of textbook theory and computer printout.

New applications of Tektronix graphics are found in the growing field of urban and regional planning. Forecasting and mapping housing demands, migration patterns, or public service needs help to make ready today for tomorrow's cities, counties and states. And the 4006-1 pictures tomorrow's world today. Instantly.

Search/Instruct



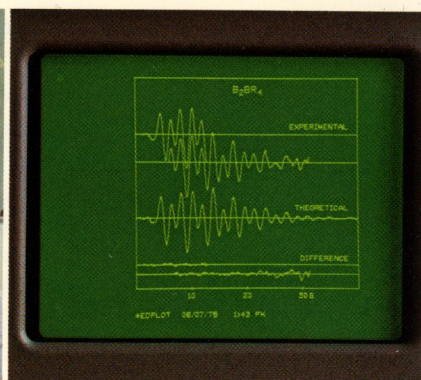
Exploring the unknown. Today it's a far cry from simply going where none have gone before.

More precisely, it's seeing what none have seen before . . . whether on the surface of the most common materials, or in the ephemera of cosmic dust. It's forcing data to unfold the secrets of what cannot be seen—a trick of interrogation that can call for collecting and processing millions of bits of information.

In hundreds of known applications, and in hundreds yet to be devised, 4006-1 Graphics can unscramble the data and unclog the obstacles between the initial probes and the ultimate results. In the laboratory, in the field, and in the classroom, Tektronix Graphics can bring to light first-hand concepts, not second-hand symbology.

A major hospital, for example, has cut electrocardiogram processing from 48 hours to 6 hours, and cut book-length printouts to virtually zero, by switching to graphics-enhanced Vector-cardiograms. An aerospace laboratory uses graphics to display the forces of drag, lift, angle of attack, and pitching moment, as exerted upon aircraft models in the wind tunnel. Graphic simulation helps predict the effects of applied orthodontic forces on a patient's tooth positioning and on his overall skull growth.

Tektronix Graphics is in the field with oil companies, displaying seismic data in the search for new oil. Our graphics is in the hospital nursery, providing up-to-the-second sensor results of incubator readings. It's in engi-



neering departments all over the world, displaying static and dynamic pictures of designs subjected to simulated stress and vibration.

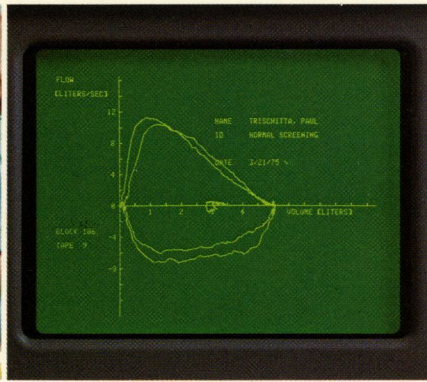
In recording, measuring, modeling, and analysis, 4006-1 Graphics can replace the procrastinations of plotters and paper printouts with interactivity that works as fast as you think.

Interactivity is what makes the 4006-1 a powerful teaching tool. In the student's search for elementary concepts and broad overviews, in his need to establish personal instructional dialogues, the 4006-1 provides the right answers at the right time.

The student or instructor can simulate physical experiments and change parameters at will. He can select, interrupt, or delve into greater detail of any graphic plot. And, with a 4923 Digital Cartridge Tape Recorder, the 4006-1 can provide automated demonstrations of basic instructional material.

Whether helping dredge data from the depths of the earth or the make-up of molecules, or feeding it in digestible form to students of all ages, the 4006-1 can give exciting new shape to the unknown.

Design / Test



From the minute to the massive. From the solid to the intangible. Sometimes one graphic picture is worth thousands of round-about words.

Whether you're designing electronic circuits and computer systems, or describing a medley of human, paper, and electromechanical system flows, Tektronix 4006-1 Graphics can help hammer out the shape of things to come.

Engineers long ago discovered graphics' ability to lop days off primitive trial-and-error plotting. They use it to preview plots. To draw histograms. For waveform and peak analyses. Tektronix graphics is indispensable in hundreds of design applications all over the world. Now the 4006-1 makes graphic plotting practical in hundreds more.

Designers of EDP systems quickly learn what a difference a display makes: where once gargantuan schematics were committed to paper by hand, all in the name of experimentation, now parts and points can be displayed on the screen at will, and corrected before being committed to costly, time-consuming drawings.

PERTinent developments. Modern network design programs, such as PERT (Program Evaluation and Review Technique), are naturals for graphics. The 4006-1

allows experimentation with critical paths, without starting from scratch after each revision, without the clamor of printers, the clutter of paperwork, or the headaches of hand plotting.

Schools of architecture and engineering both find the graphic model teaches more quickly, illustrates concepts more concretely.

Urban planners and county governments can model transit systems, freeway interchanges, crime patterns, housing proposals, and with those models test alternatives before committing to project funding.

The 4006-1 allows not only simulation of design concepts. It allows simulation of the forces to which those designs will be subjected. You leave it to graphics and you leave nothing to chance.



Tektronix 4006-1

Access to Answers.

Getting the picture: that's what problem-solving is all about.

Getting the picture means more than accumulation of co-ordinates. More than a stream of statistics. Getting the picture is pulling it all together into concepts. Into trends. Into concise, workable information. In short, into the stuff decisions are made of.

Graphics gives you the picture.

Literally. Literally enough to formulate decisions right from the screen. Instantly. Instant enough that translation time from statistics to graphics is measured in seconds. Ideas take shape spontaneously—not after hours of printout and hand plotting. Once a point is proved, move on: graphics is a boon to report generation and turn-around time.

Graphics speaks your language.

Whether you're in management, financial planning or inventory control, in the lab or the classroom, graphics reduces the jargon of dissimilar disciplines to meaningful, manageable presentations. Not only can a department head work interactively with his own computer data, but he can tap into common data banks for key information from other departments—and find that in-

formation in terms of graphs, not in terms of someone's shorthand vernacular.

That's where the 4006-1 comes in.

Priced no more than many wholly alphanumeric terminals, the 4006-1 makes graphics capability as practical for the stock room and the conference room as for those departments where graphics will be used continually. Graphics becomes a bonus by which the whole system can benefit.

The 4006-1 opens up whole new possibilities for business, science, manufacturing and education. Graphics has already been integrated into economic forecasting, production monitoring, medical diagnosis, oil exploration, nuclear research, and hundreds of other applications.

Chances are, your requirements are well within the scope of graphics interactivity, and your budget well within range of the 4006-1.

Our new low-cost Interactive Graphing Package extends greater graphics muscle to the non-programmer as well as to the experienced programming technician. It lets the operator use English-language commands to

construct, edit, save, recall, update and display graphs from the computer . . . conversationally. You can read data and commands right from the files, and utilize a library of HELP messages as you familiarize yourself with the package.

Mainframe compatibility? Immediate in most cases, thanks to interfaces and software support that have been used and trusted for years.

Precision? The 4006-1 gives you resolution and workability beyond the reach of any other comparably priced graphic terminal. Need hard copy? We've got it in our 4631 Hard Copy Unit, one of which serves up to four 4006-1's. Easy to use and maintain, it gives high quality dry 8½" x 11" copies in seconds. Data storage? There's our 4923 Digital Cartridge Tape Recorder for low-cost, reliable information entry and retrieval.

Want to see more? You can get a sampling of 4006-1 applications from the overviews inside. But for the whole story, see your Tektronix Sales Engineer soon. He'll show you how the 4006-1 can benefit your operation all along the line.



The 4006-1: a known quantity.

Because it's from Tektronix, the pioneer and pacesetter in low-cost graphics. Recognized for our reliability since we first introduced our famous oscilloscopes in 1946. Our graphics reputation is built on results: on torture-tested terminals. On wide-ranging peripheral support. And on worldwide service, instruction, installation, maintenance and software.

The terminals we manufacture are sent through test chambers of temperature, shock, altitude and humidity. Only the fittest survive as our final product. Our peripherals receive the same painstaking care.

Sooner or later you'll get the picture. And when you do, it's just good sense to get it from the graphics leader. We're within reach, anywhere on the globe. We're standing by with a package of purchase and lease agreements—including very attractive quantity purchase discounts—for the new 4006-1.

Specifications

Display Medium:
Direct View Bistable Storage CRT

Display Area:
7.5 inches wide by 5.6 inches high (19.05 cm x 14.22 cm)

Alphanumeric Mode Format:
35 lines, 74 character per line
2590 characters full screen

Character Set:
63 printing characters
(TTY ASCII Code)

Character Generation:
5 x 7 dot matrix

Cursor:
8 x 8 dot matrix

Graphics Display Mode:
Vectors only
Vector drawing time, $3.6 \pm .2$ ms.

Information density:
1024 X by 1024 Y addressable points
1024 X by 780 Y viewable points

Baud Rate:
Transmit and receive independently selectable from 75 to 4800 baud

Input Power:
110/240 VAC (Low, Medium, High)
50 to 440 Hz, 105W

Operating Temperature:
 $+10^{\circ}\text{C}$ to $+40^{\circ}\text{C}$

Operating Altitude:
To 15,000 feet

Physical Characteristics:

Height, $12\frac{3}{8}$ inches (31.43 cm.)
Width, $15\frac{1}{4}$ inches (38.74 cm.)
Length, $27\frac{1}{2}$ inches (69.85 cm.)
Net weight, 42 pounds (19.05 kg.)
Shipping weight, 50 pounds (22.68 kg.)

Interfacing:

The 4006-1 is shipped with a Standard Data Communication Interface, with inputs and outputs conforming with EIA RS-232-C.

Software:

PLOT-10 Software packages designed to be used with the 4006-1 Graphic Display Terminal include: Terminal Control System, Advanced Graphing-II, Preview Routines for Calcomp Plotters, Minicomputer Software, Character Generation System, and the new Interactive Graphing Package.

Peripherals:

The 4006-1 is compatible with the 4631 Hard Copy Unit, for dry, high-quality, $8\frac{1}{2}$ x 11-inch copies of any information displayed on the 4006-1 screen.

The 4923 Digital Cartridge Tape Recorder, a low-cost off-line data storage device, is also compatible with the 4006-1.

Accessories:

Standard Accessories:
A User's Manual is supplied at no extra cost.

Optional Accessories:
Option 1: Half Duplex Interface
Half duplex interface
4006-1 maintenance manual
Viewing hood

Warranty:

All Tektronix products are warranted against defective materials and workmanship for one year. Additionally, Tektronix Computer Terminals, Calculators and related peripheral equipment are fully warranted against any trouble for the first 90 days. Any equipment trouble occurring to those Tektronix products during the 90-day period will be repaired by Tektronix personnel at no charge. Questions regarding this warranty should be discussed with your Tektronix Sales Engineer.

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