

# What if you chose HP products to

**For example: The HP 45C computer system can color your thinking (and vice-versa) 4913 ways.**



Color clarifies. Graphics generated by the new HP 9800 System 45C can clarify your data with up to 4913 shades of color.

Designed for engineers and scientists who have complex design and analytical problems to solve, the System 45C is a completely integrated, powerful workstation with built-in color graphics, CRT display, light pen, operating system, read/write memory, enhanced BASIC language, keyboard, mass storage system, and a high-speed thermal printer.

But a mere list of attributes, impres-

sive as they are, misses the real point: the System 45C can solve complex graphics/computational problems, provide three-dimensional representations in solid or wire frame form, and display results in vivid colors selected to enhance interpretation.

Central to this spectrum of capability is the System 45C's high-resolution CRT screen. Measuring 13 inches (330 mm) diagonally, it can display alphanumeric and vectors in eight colors; 4913 color shades are available for area fill. Colors remain crisp and clear over its entire area. Geometric figures

such as circles, rectangles, and regular polygons can be drawn on the screen through simple graphic commands. Another such command quickly adds color fill, selected from standard color models, to any drawn figure. The system's firmware relieves the user from having to write application routines to utilize the graphic capability.

The standard system, including all internal peripherals, the powerful operating system, and 187 kilobytes of user-addressable memory, costs \$39,500\*. A minimum configuration system is available for \$31,500\*.

# enhance your productivity?

**For example: a new approach to making continuous, reliable measurements of a patient's respired CO<sub>2</sub>, noninvasively.**

Ordinarily, the amount of CO<sub>2</sub> in the blood is regulated automatically by the brain's respiratory center, which controls the rate and depth of respiration. But when a patient is anesthetized, or when disease prevents normal breathing, CO<sub>2</sub> can get seriously out of balance. And it is at just such critical times that the physician most needs to know the patient's CO<sub>2</sub> status, in order to control ventilation effectively.

CO<sub>2</sub> is often measured directly from arterial blood samples, in spite of the fact that significant time may pass between drawing the sample and analyzing it in the laboratory. In such a case, the physician must rely on information that may no longer reflect the state of the patient.

Nevertheless, the analysis of samples from an arterial tap is the favored method, simply because monitoring by other means has been cumbersome and unreliable.

Now, with the introduction of the HP 47210 CO<sub>2</sub> monitor (or capnometer), the physician can get stable, repeatable, continuous CO<sub>2</sub> measurements noninvasively. Microprocessor augmented, and using technology which departs radically from that of other CO<sub>2</sub> monitors, the HP capnometer makes direct measurements of inspired and expired CO<sub>2</sub> by on-line monitoring on a breath-by-breath basis.

The measurement is made optically by a small sensor secured to an airway adapter at the patient's mouth.



A beam of infrared light from the sensor is transmitted through the adapter, and the absorption of this light by the breathing gases gives an accurate, continuous measure of the patient's CO<sub>2</sub>.

The advantages of the HP capnometer are impressive:

- Simplicity of operation makes it possible to concentrate on the patient rather than the monitor.
- Built-in gas cells make it easy to check and recalibrate the instrument.
- The capnometer monitors itself continuously, and calls attention to itself if a malfunction occurs.
- It also monitors the ventilator or

anesthesia machine, and alerts the staff in case of apnea or breathing system disconnections.

An innovative option makes possible the noninvasive cutaneous monitoring of CO<sub>2</sub> diffusing through a small area of the patient's skin. Its availability is subject to FDA approval, which is pending.

Price of the HP 47210 is \$5800\*.

For more information, mail the coupon to Hewlett-Packard, 1502 Page Mill Road, Palo Alto, CA 94304. Or call the HP regional office nearest you: East (201) 265-5000, West (213) 970-7500, Midwest (312) 255-9800, South (404) 955-1500, Canada (416) 678-9430.

**These are only two of many thousand product reasons for choosing HP.**



Mail to: Hewlett-Packard, 1502 Page Mill Road, Palo Alto, CA 94304  
Please send me further information on

- HP 9800 System 45C computer
- HP 47210 capnometer

Name \_\_\_\_\_

Company \_\_\_\_\_

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\*Domestic U.S. prices only.

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