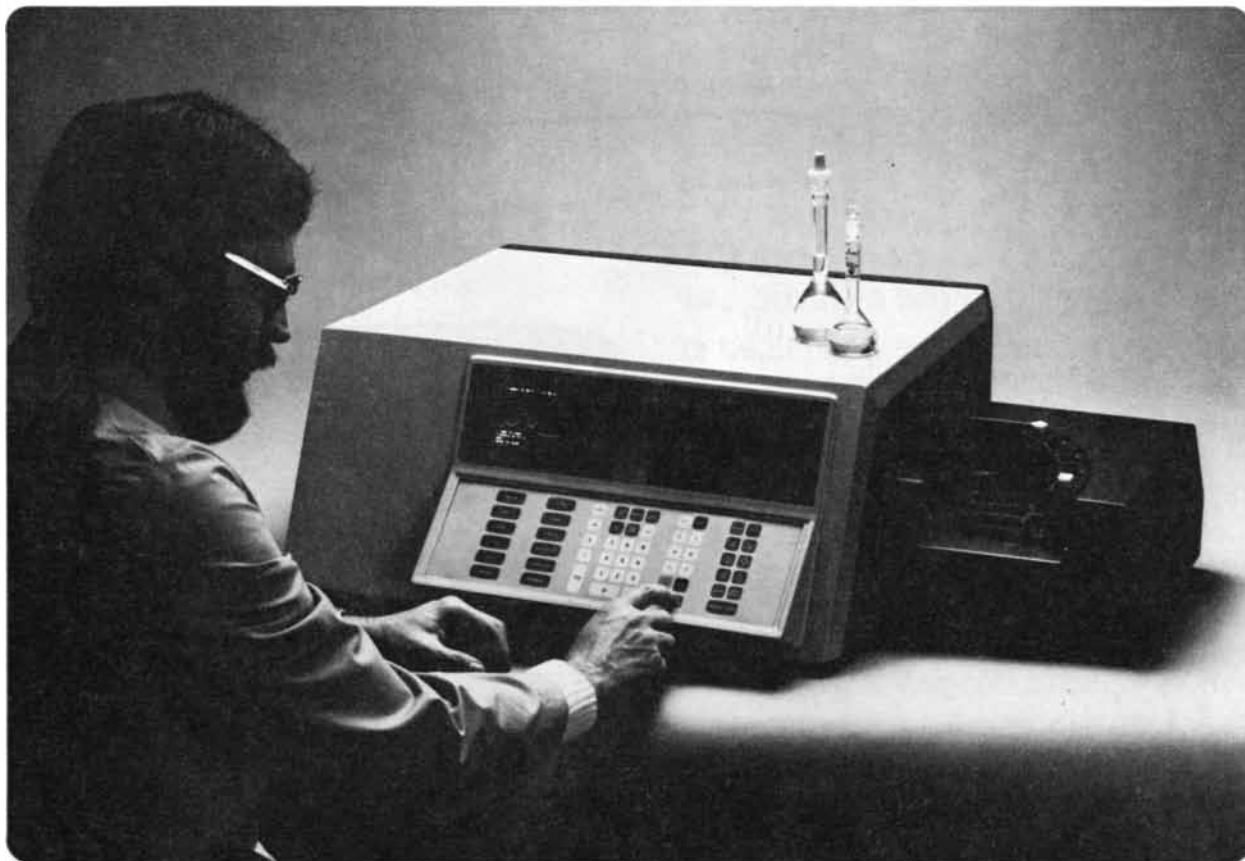


# HP measurement and computer advances



## ***HP's first UV-VIS spectrophotometer lights the way to faster, nondestructive, chemical identification.***

**Electronics simplifies the optical system, reduces its moving parts to one in the new HP 8450, a powerful, computer-controlled, ultraviolet-through-visible-light spectrophotometer that generates full spectrum and multicomponent analysis in seconds.**

Spectrophotometers identify unknown chemical compounds by measuring their ability to absorb light. Conventional instruments do this by the time-consuming method of sending light through a prism mechanically rotated so that one wavelength at a time passes through the sample to a detector. The first spectrophotometer to be offered by HP has a revolutionary optical system. It passes light first through the sample and then onto a holographic grating, which disperses it across two parallel arrays of light-sensitive diode detectors—one array measuring visible, the other ultraviolet, light. Resulting spectra

are shown one second later on the instrument's built-in video display.

The reversed optics technique coupled with the high speed data handling capability of the HP 8450 enables chemists to make full-spectrum, multicomponent analyses of mixtures containing up to seven components, at an unprecedented 360 samples per hour!

The built-in, 44k-word microcomputer permits the user to program operating parameters and measure virtually any sample with minimal sample preparation and minimal training. Communication is through a friendly, interactive keyboard, sealed to prevent damage from chemical spills.

After an analytical run, the output from the HP 8450 may be directed to an optional plotter, printer/plotter, or other HP-IB (Hewlett-Packard Interface Bus) compatible device. For use with other data systems, RS232C serial output is also included.

Prices start at \$20,000\*.

# extend your possibilities.

## Factory data collection made economically viable.

With DATACAP/1000 software and HP data capture terminals, the HP 1000 computer can provide manufacturers with immediate, accurate information about production quality, inventory levels, or work-in-process.

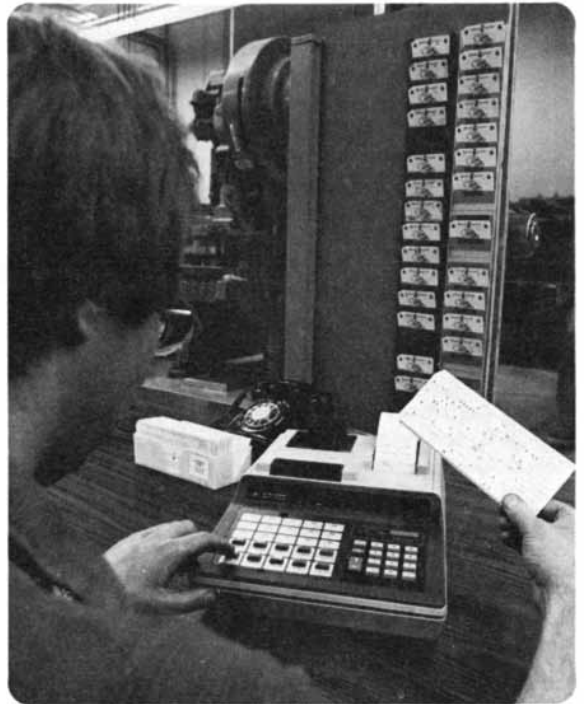
HP—no slouch when it comes to manufacturing—has developed a factory data collection system that meets our standards of practicality and accuracy, as well as economics. We've been using it ourselves for several months and, based on results, think it will make its mark in the outside world.

The system is installed at one of HP's manufacturing divisions, in the plastic and metal fabrication shop. DATACAP/1000 was designed to increase the effectiveness of operations management. It is a general purpose, real time data capture software package that can be tailored to the user's application and installed without programming.

The user decides what information is wanted, and what data must be captured to provide this information. Then, through a simple, interactive process on a display terminal, the user creates specifications for data entry transactions. These include entry sequence, method (i.e. keyboard or card/badge readers), validation, and storage. Data can be stored on a disk file, an IMAGE/1000 data base, magnetic tape, or a combination of these. Transaction logging can be selected to provide an audit trail.

Data is captured and validated at the source using HP's new 3075, 3076, and 3077 data capture terminals. The terminals are simple to operate. HP employees typically learn to use them in a few hours, and are comfortable with them in a matter of days. Available in benchtop or wall-mounted versions, they come with more than 50 combinations of options to suit each work center. A variety of data entry methods can be used, such as keyboard, or badge or card reading.

Up to 56 data capture terminals can be linked to the HP 1000 and managed by DATACAP/1000 by using



one or more simple, low-cost communication links. Each link can be up to five miles long, and uses a single, shielded, twisted pair cable.

Instead of filling out a card, the worker now walks to a nearby data capture terminal and pushes the attention key. When the terminal indicates that it is ready, the worker keys in a transaction specification number. The terminal then runs through a series of prompting lights which guide the worker through the entry of data: shift number, name, quantities, run hours, setup hours, etc. All keyed entries are subjected to validation procedures, so errors are caught and corrected on the spot.

As a result, the HP division's supervisors and managers now have access to timely and accurate information on which to base operational decisions. HP DATACAP/1000 software is priced at \$3000.\* HP 3075A, 3076A and 3077A data capture terminals are priced between \$2090\* and \$4230\*, depending on the selected options.

**HEWLETT**  **PACKARD**

1503 Page Mill Road, Palo Alto, California 94304

For assistance call: East (301) 258-2000, West (213) 877-1282, Midwest (312) 255-9800, South (404) 955-1500, Canada (416) 678-9430

Mail to: Hewlett-Packard, 1503 Page Mill Road, Palo Alto, CA 94304  
Please send me further information on

- HP 8450 UV-VIS spectrophotometer  
 HP DATACAP/1000 and data capture terminals

Name \_\_\_\_\_  
Company \_\_\_\_\_  
Address \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

\*Domestic U.S. prices only

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