





# APPLICATIONS

Small general purpose computers such as the PDP-8 have changed the way scientists work in their laboratories, engineers design and build instruments, machines and control systems. Scientists work with these computers as personnel, approachable and powerful tools; engineers build in small computers as components. More PDP-8's and PDP-8/S's have been sold for these applications than any other computer in the world. The price performance breakthrough the machine represents is only one reason for its acceptance. Equally important are design features that make it simple and straightforward to interface and program. It is a general purpose programmable machine designed particularly for these on-line applications. The number of PDP-8's installed and delivered establishes a community of users who have chosen a winner.

In research, the PDP-8 family has had a tremendous impact in cutting experiment time and providing the researcher with direct, on-line data reduction. They control and monitor powerful nuclear reactors; control x-ray diffractometers and analyze nuclear spectroscopy data. They monitor medical data, automatically analyze electrocardiograms, study the effects of drugs on the nervous system.

The PDP-8 family provides engineers with a powerful computer they can afford to use for control and testing applications. PDP-8's control blast furnaces and open hearths, monitor slab mills and finishing mills in steel plants. The chemical industry uses Digital's small computer for complete process control systems, while power

utilities use PDP-8 based systems to control plant start-up, power generation and power network distribution. A broad variety of products are now being designed with PDP-8's built in. The manufacturers of these products are able to offer more versatile and powerful instruments, machines, and systems. They are able to obtain attractive quantity discounts and to get dependable delivery.

Because of the computer's ability to perform point-to-point measurement, collect data continuously during an experiment and cut costs by repeating steps and calculations automatically, instrument manufacturers find computer based systems an important selling point.

One company builds PDP-8's into systems used to automatically test modern, high speed integrated circuits. Another has developed a PDP-8 based gas chromatography system to analyze and manipulate data that has been previously recorded on magnetic tape. Still another has manufactured a PDP-8 controlled system for automatic program control of an x-ray spectrometer while yet another uses the computer in a system for automatic large scale chemical analysis.

In education, the PDP-8 family plays another important role. They provide students in the classroom with a basic knowledge of computing systems before entering schools of higher learning or industry. Students are taught computer programming, gain familiarization with logical design and hardware, and use the computer as a tool for homework problems, mathematical learning and research projects.

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## CUSTOMER SERVICES

PDP-8/I features one of the most comprehensive support and training programs in the computer industry. Digital's small computers are often the first computer the customer has owned. Digital has developed the kind of programming and maintenance training these people need. These courses, included in the basic price, are the best in the industry.

The number of Digital's machines already installed insure you a world-wide field service staff.

PDP-8/I users may become members of the Digital Equipment Corporation Users Society, and join nearly 2000 PDP-8 and PDP-8/S users already there. They will have access to the expanding DECUS library of utility programs, subroutines and other programming materials. They may contribute to and receive DECUSCOPE, a monthly technical newsletter containing user techniques, routines and program summaries. They will attend DECUS annual symposiums and seminars.