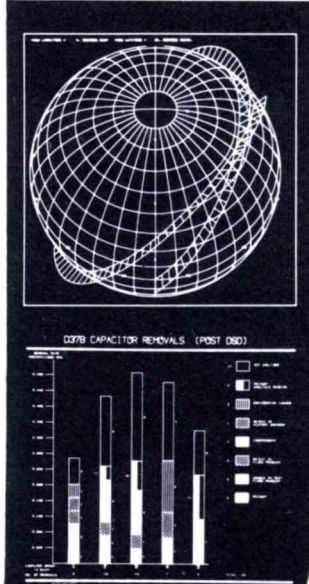
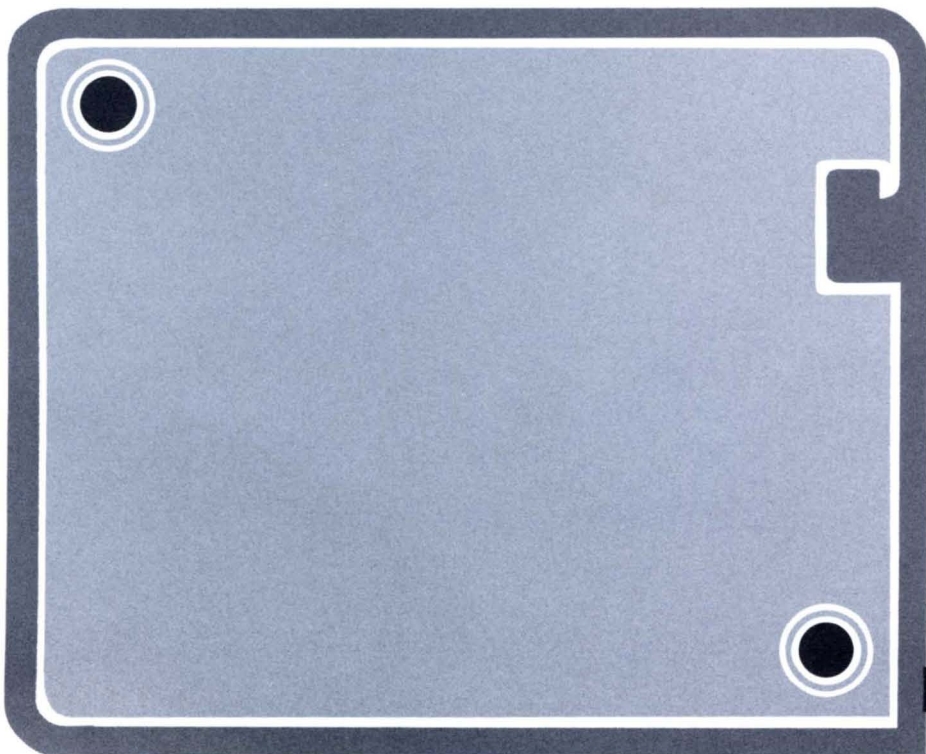




micromation technology

*—a practical solution to the two major
problems in information management*



Stromberg-Carlson Micromation Systems

**A family of compatible equipment
that can cut turn-around time
and lower the cost of turning digital data
into readable language!**

As the role of the computer has grown, so have the problems of dealing efficiently with the information it generates. The problem has been two-fold: how to get digital data into readable language — fast enough and at a low enough cost to be really practical.

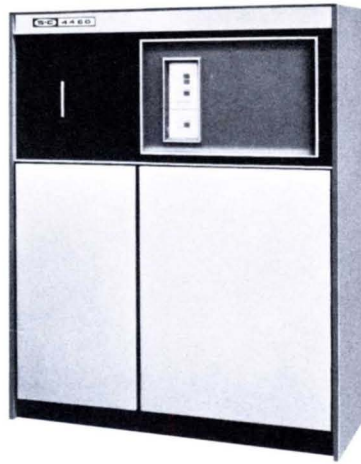
Micromation takes a big step forward toward a solution that lets you take full advantage of your computer. For the first time, Micromation provides a full system of compatible components which are designed to cut turn-around time and lower the costs of converting computer output into readable information.

In a very real sense, Micromation can take the chains off your computer—and free it to go at its own pace. The 600 to 1200 line rate of the mechanical printer which has controlled the production of readable information no longer needs to inhibit data processing. For the first time, you can translate computer codes into useful text at computer speeds — get a copy of that text nearly as fast — and get it to the people who need it through low-cost inquiry stations.

The key element in the Micromation System that makes this possible is a development pioneered by Stromberg-Carlson, the Micromation Recorder. Practically speaking, the S-C Recorder is a system-within-a-system. This single component turns the computer's outpouring of digital data into human language and converts it instantly to computerized microfilm—or hard



copy. It does so economically and at a pace that gives you access to the information immediately. One basic component handles the work which has previously required several pieces of equipment and a number of costly intermediate operations. Here's how it works.



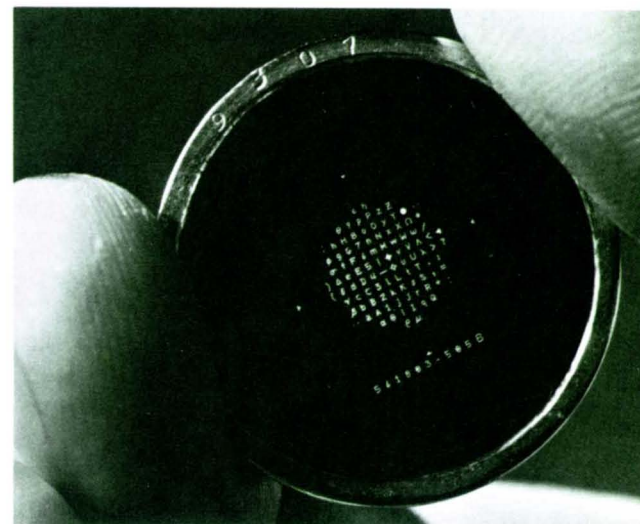
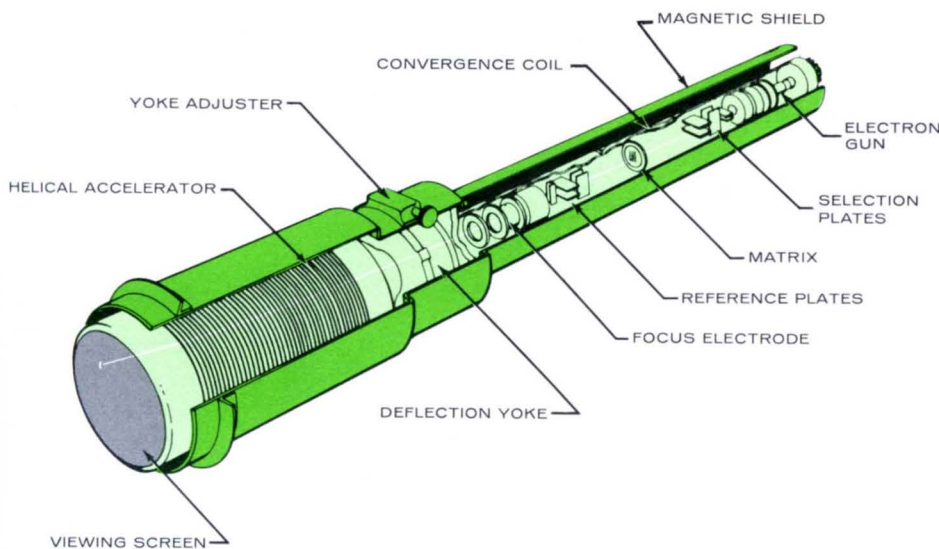
the newest storage and retrieval systems. To save computer time, a special projector can be used to superimpose standard business forms over the text. The microfilm can include all useful information—text, codes and forms. Options produce hard copies of highest quality.

The Micromation Recorder accepts the output of the newest high speed computers and translates it instantly to standard alphanumeric characters. Translation is handled by S-C's own advanced cathode ray tube—the CHARACTERON® Shaped Beam Tube. Readable information is generated by passing an electron beam through characters etched on a miniature matrix placed in front of an electron gun. A stroke generation system creates special characters and graphics by joining short line segments under computer control. The CHARACTERON tube produces an image of exceptionally good resolution and high quality which is displayed on the tube face.

The text or graphics displayed on the tube face are then automatically converted to S-C's own computerized microfilm. The Recorder produces 16mm roll film, optionally produces 35mm film for aperture cards, or microfiche. These can be simultaneously coded for use with

That's the basic Micromation Recorder—cornerstone of the Micromation System. Feed it digital data from the computer or tape transports—it delivers text or graphic translations in the useful form of microfilm—or paper. It does so at rates as high as 70,000 pages in 8 hours—and at costs that mean thousands of dollars worth of savings.

The full Micromation System offers remarkable flexibility, versatility and convenience, because it can be tailored specifically for the job. Not everyone needs every feature, but everyone who deals with large volumes of computer-generated data needs the system. Micromation Systems offer everything you need from four basic Recorders to low-cost inquiry stations—including film duplicators, reader-printers, and production paper printers. Check the next page for a full list of Micromation components and start planning your system now.



A complete family of Micromation-Designed equipment to handle every business need

Four Micromation Recorders (see the accompanying sheets for detailed specifications)

S-C 4060 Plotter-Printer for generating precise scientific and engineering graphics

S-C 4360 Recorder for inquiry into a small data base.

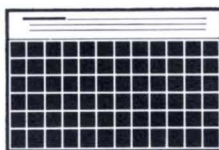
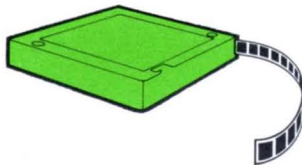
S-C 4440 Recorder for frequent inquiry into a large to medium data base.

S-C 4460 Recorder for producing high quality printing and charts for management reports.

A choice of film output that suits the needs of your specific application:

S-C Microfilm is automatically generated in 16mm roll film for cartridge storage, or optionally in 35mm, suitable for aperture cards. Film can be simultaneously coded for image or line count, Kodamatic, Miracode—even special codes.

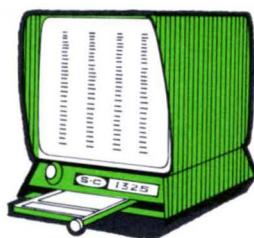
Microfiche: S-C's key option, the Microfiche Camera, permits the automatic generation of titled microfiche at high speeds without costly, tedious stripping. Produces 4" x 6" 72-image fiche or tab card size at the rate of 1 to 5 fiche per minute.



For fast access to data — Inquiry Stations, Micromation-Designed:

S-C 1700 Micromation Inquiry Station offers three interchangeable display screens of different sizes. Displays page or record. Compact desk-top size, executive styling.

S-C 1325 Microfiche Inquiry Station displays any one of the 72 texts recorded on a 4" x 6" microfiche on an 11" x 14" viewing screen. Convenient x-y selection provides fast access.



Micromation Printers, designed specially for use with Micromation Systems:

S-C 3400 Production Hard Copy Printer produces paper copies of master-copy quality from roll film at the rate of one 11" x 14" page per second. Since film image may carry standard business forms superimposed over data, forms inventory may be reduced.



S-C 3500 Demand Printer-Reader presents computer data in full page format on daylight viewing screen, then produces a clear, sharp paper copy on demand. Compact executive styling.



An integral part of Micromation Systems—Kalvar Dry-Process Reproducers and Film:

Kalvar Multimode Reproducers provide a compact all-in-one unit for the printing and processing of 16mm or 35mm microfilm duplicates. Dry process uses heat only; no chemicals required. Multimode options permits direct reproduction of negatives or positives, negatives to positives, or positives to negatives. Choice of models with variable speeds, ranging from 5 to 185 ft. per minute. Film requires no dark room; is sensitive to ultra-violet light only. Scratch-resistant thermoplastic emulsion on polyester base has 5-year shelf life.

UAIDE, the society for Users of Automatic Information Display Equipment, is the only international society holding regular meetings to explore design improvements and techniques for use of such equipment. S-C equipment incorporates most of the society's recommendations.

For additional information on Micromation Systems Components write to:

Stromberg-Carlson
A SUBSIDIARY OF GENERAL DYNAMICS CORPORATION

Data Products Division,
P.O. Box 2449, San Diego, California 92112
Phone (714) 298-8331

® Trademark, Stromberg-Carlson