



ALL NEW TRANSISTOR

RCA

ELECTRONIC DATA
PROCESSING SYSTEM

5 0 1

Business-Oriented

Performs full Range of Tasks at Low Unit Cost—The RCA 501 has been endowed with the work habits that result in low work unit cost—speed, economy of motion, accuracy—and with the capability of applying these efficient work methods to the full scope of business routines. In step-by-step timed-out studies of such typical business procedures as inventory control, production control, billing, payroll accounting, sales and cost analysis, receivables accounting, market forecasting, etc., the RCA 501 has been rated exceptionally economical in terms of cost per unit of work.

Efficiency of a high order in its electronic data processing system is a natural result of RCA's long history in computer work. RCA contributed greatly to the development and perfection of many computer techniques and components essential to electronic data processing, components such as magnetic cores and transistors and special techniques in logic circuitry and programming. RCA was among the first to work in the field of electronic data processing and has been responsible for some of the most advanced designs.

Adaptable

Easily and Efficiently Adaptable to Individual Business Situations—Whether a business now maintains its records manually, on bookkeeping machines, or uses punched cards . . . whether the big problem is file maintenance or high volume computation . . . in centralized or decentralized operations . . . whether the business is insurance, banking, manufacturing, utility, merchandising . . . whatever the individual situation, an RCA 501 system matched to specific needs is available. To achieve desired specialization and flexibility the 501 series offers punched paper tape, magnetic tape and punched cards for input or output and high-speed printers either directly connected to the computer or independently operated, and random access files.

Fast

Automatic

Optimum Equipment Utilization—Minimum Operator Intervention—The basic 501 system can control up to 63 tape stations, capacity for a vast quantity of records. Also controllable automatically by the basic 501 system are on-line printing, on-line paper tape transcribing, and random access files. The ability to place so much of the machine's capacity under automatic control means that maximum use can be made of the system, thus keeping the cost of doing work and the incidence of error very low.

Other control techniques enable the operator to "see" at a glance the state of a program as it progresses.

Accurate

Built-in Accuracy—Accuracy is tested at every step in the 501. Punched cards are read twice. Parity checks are applied to paper tape. On magnetic tape, characters are recorded twice, checked for accuracy and read twice.

At every data transfer point parity is re-checked. Each arithmetic operation is performed twice, simultaneously.

These and other accuracy controls assure that all processing steps can be relied upon to produce verified results to merit your complete confidence.

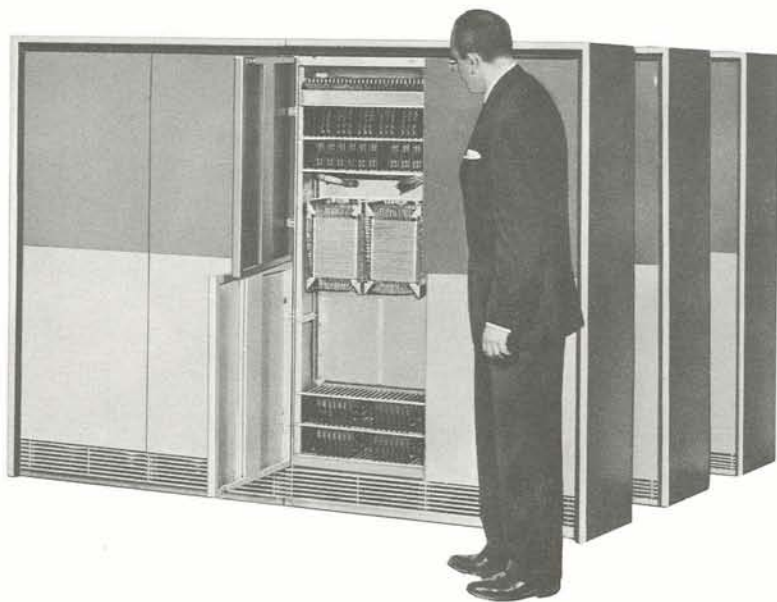
Completely Variable Recording

Unique Method of Recording Data Makes RCA 501 More Efficient—In most systems, the length of tape used for each entry must be equal to the *longest* possible entry of each type. This not only wastes magnetic tape but, much more injurious, forces the computer to waste time processing tape which has on it no useful information. The only way out of the difficulty is to resort to special programming—a costly recourse.

The RCA 501 records data on tape in proportion to the length of the data in each entry. No wasted tape—no wasted computer time—no expensive special programming required.

This is one of several data processing methods which are

Exceptional Speed at Low Cost—The test of true efficiency of electronic data processing equipment is the speed at which it can complete work in relation to the cost of the work. Combining speeds compatible with economy and ingenious operational procedures such as: variable length recording, the capabilities of performing any of 17 pairs of tasks simultaneously, of reading tape in both directions, and of dual instruction in virtually a single instruction space—the 501 processes data at a tremendously fast rate yet keeps costs down.



High Speed Storage—Expandable to 260,000 characters capacity.

unique to the RCA 501 and which give the system important efficiency advantages.

Service

Customer Service and Equipment Service of the Finest Quality—RCA's sales representatives and systems analysts are available to assist in conducting studies to measure the capabilities of the RCA 501 against the problems of an individual business. Other specialists estimate site

Punch Card Input and Output—Plugboard automatic data control.



Computer—Automatic program control over up to 63 magnetic tape stations, up to 12 random access files.



Random Access File—expandable in steps of 1½ million characters.



All Transistor Design

All New Design—Transistorization—Radical Expense Reduction—The RCA 501 is entirely new. It was designed especially to reap the many advantages of employing transistors, printed wiring, modules and other techniques of miniaturization. New compactness and trim lines not only give the 501 the contemporary look; they also save floor space. Transistors operate at lower temperatures, therefore, 501 cooling requirements are minimum. Power expense is lower. Initial installation costs are greatly reduced. These savings in site preparation, installation and cooling costs can amount to many tens of thousands of dollars and comparable amounts in recurring costs.

RCA's experience with advanced transistorized and miniaturized products—unequaled in the electronics industry—has been translated into 501 reliability—reliability to such a degree that 501 users can look forward to exceptionally high machine utilization.

Building-Block Principle

Expansible as the Work Load Requires at Minimum Expense—The RCA 501 building-block plan of construction makes it feasible to proportion electronic data processing facilities to meet current needs thus minimizing current expenses. When an increased work load or a decision to place more of the operation under 501 electronics necessitates additional facilities, they can often be handled by the basic computer electronics supplied with the original installation. For instance, up to 63 tape stations—tremendous capacity—can be added as needed . . . similarly, memory storage can be increased in increments to 260,000 characters as required, all without basic systems change.

The building-block principle operates to the buyer's advantage in many other important respects . . . let an RCA representative explain in detail.

preparation cost and suggest system layouts. Still another service available to 501 customers is the training by RCA of their data processing analysts, system programmers and system operators.

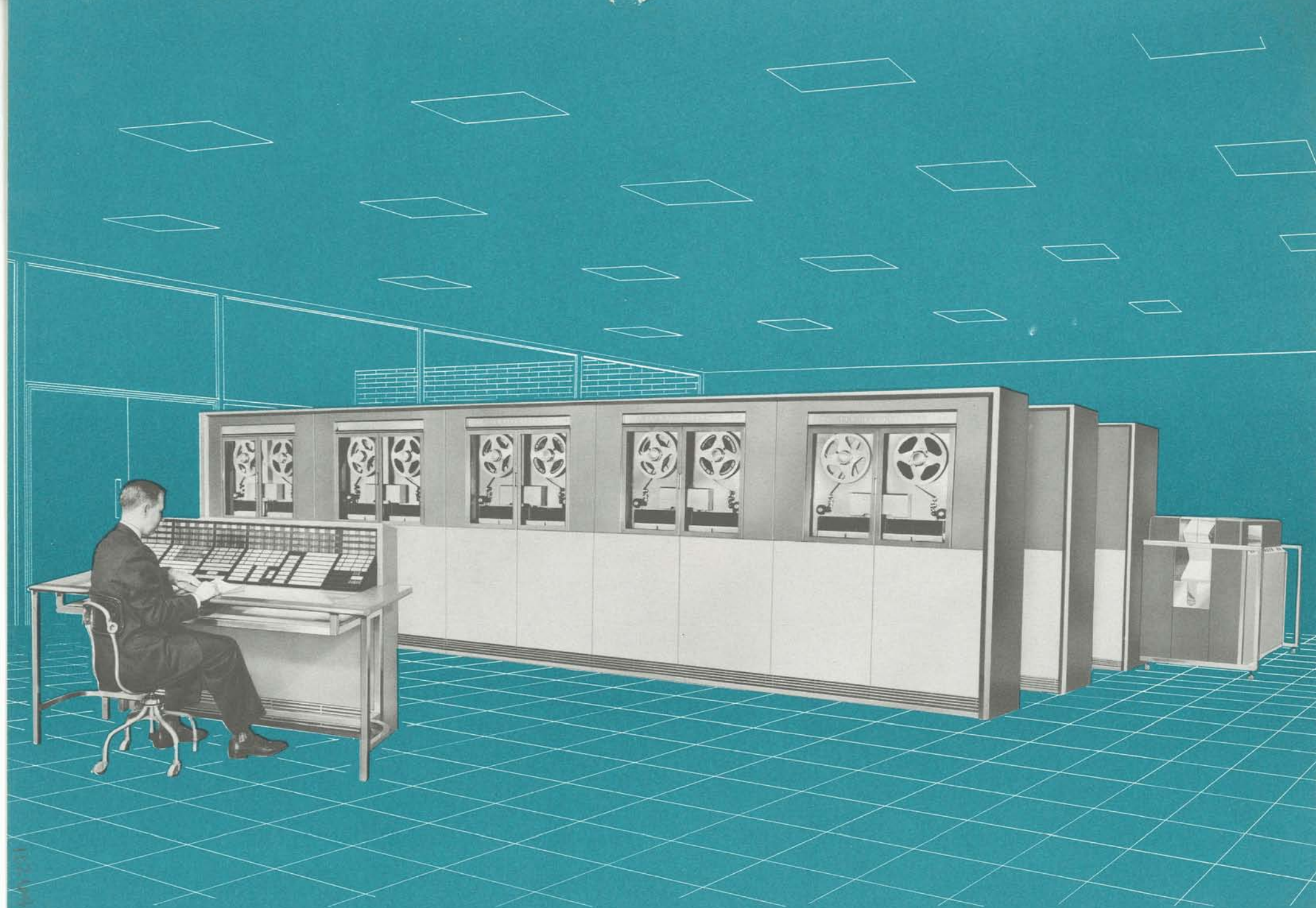
To maintain 501 equipment RCA offers the facilities of the RCA Service Company, generally acknowledged to be the world's finest electronic equipment service organization. Its skilled technicians work with highly complex electronic devices ranging from the electron microscope to fire control computers to electronic data processing systems throughout industry and government, in all of the United States and in 28 foreign countries.

Confidence

Backed by the World's Leader in Electronics—An Electronic Data Processing System is precise electronic equipment, dependent for its efficient and accurate operation upon competent engineering, advanced circuitry, finest quality components and skilled workmanship. RCA's experience in developing and manufacturing electronic equipment of extreme precision and with critical reliability requirements is unequalled.

A pioneer in the development and perfection of computer techniques, RCA was among the first to work in the electronic data processing field and has been responsible for some of the most advanced designs. Beyond its long history of computer work, RCA has been able to call upon special knowledge gained from such RCA apparatus as missile guidance systems, microwave radio relay equipment, world-wide communication equipment, remote control devices, automation systems and scores of other similar developments. RCA's exceptional proficiency in advanced communication electronics is of great advantage in developing methods of linking branch data processing facilities to a central or home office data processing operation.

The RCA 501 Electronic Data Processing System may be chosen with complete confidence—with the assurance that comes of depending upon the world leader in electronics.



DIRECTED TO EXECUTIVES WITH A FLAIR FOR FACTS



ELECTRONIC DATA PROCESSING DIVISION
RADIO CORPORATION OF AMERICA, CAMDEN, N. J.