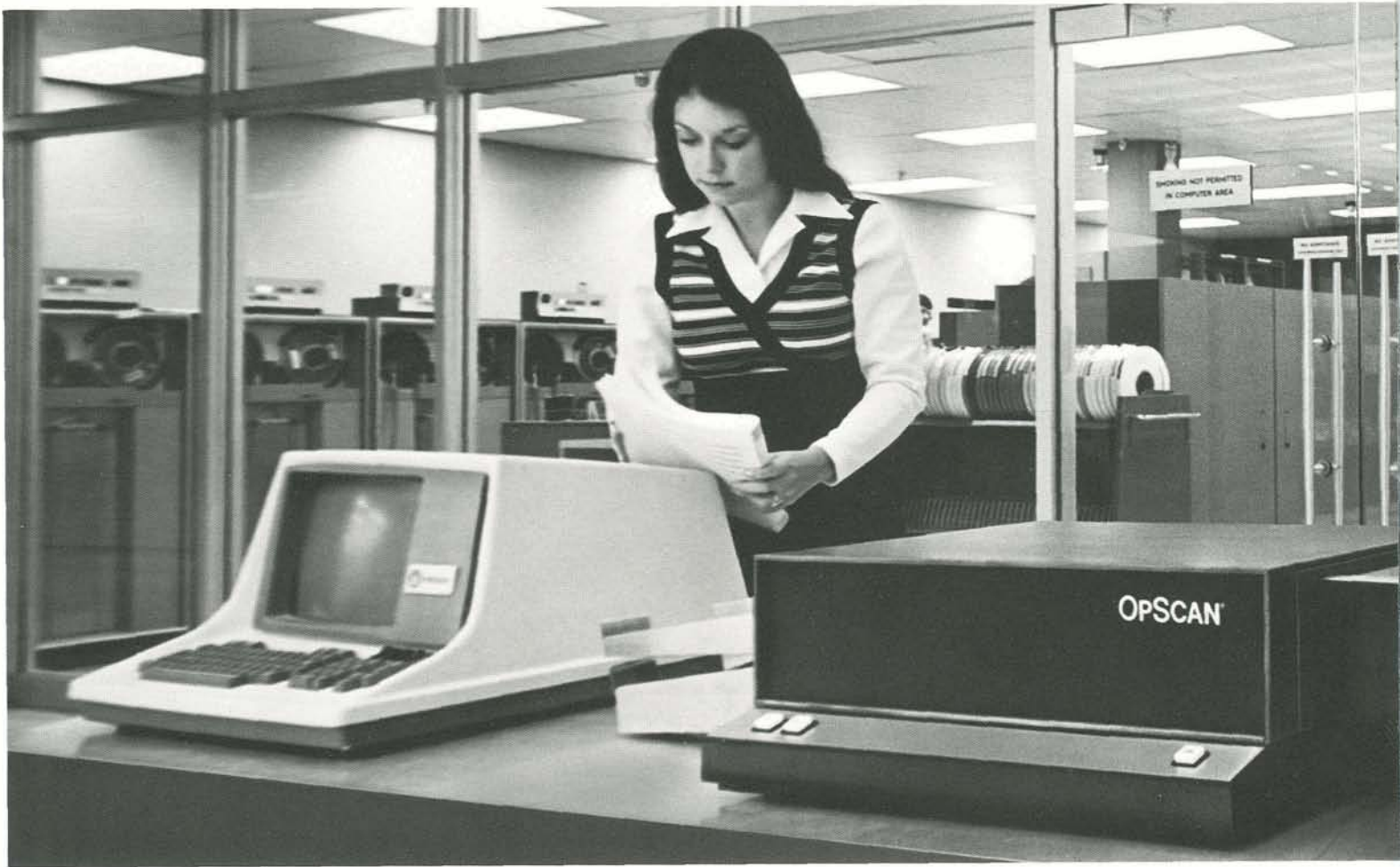




DEC 5 1974

OPSCAN[®] 17

Source
Document
Reader



The System

The OpScan 17® scanning system is a low cost, practical approach to computer input. Hundreds of satisfied users have found that it gives them the best solution to their data entry problems.

Key to the system is the very low initial and operating cost made possible by optical mark reading. This data collection method is appropriate for even low volume input locations. And only one hour of use per day can cost justify the system!

Computer-printed, hand-marked and hand-printed documents are scanned and the data accumulated for automatic conversion to computer input. The OpScan 17 system is extremely flexible as the scanner can read

forms and documents ranging up to full page size without any mechanical adjustment.

More than that, simple forms program the scanner quickly and easily.

The scanner may be used as a stand alone device which outputs to both 96- and 80-column punched cards or to magnetic tape. It may also be used as a terminal at remote locations so that data can be collected and transmitted to a central computer. Now, data can be collected and controlled at source locations with minimum hardware costs.

The OpScan 17 is designed for users. We believe its application flexibility is unparalleled.

Cuts Computer Input Costs

Up to 60% of total computer operation expense involves data preparation costs. An OpScan 17 can cut those costs dramatically. That's just one reason our system is attractive to so many users.

An OpScan 17 costs less than one half the expense of a keypunch station and gives up to eight times the normal keypunch throughput volume. Because documents are controlled at the source the need for keypunch verification is eliminated.

Ordinary clerical personnel can prepare computer input with an OpScan 17 system. Specially trained operators aren't re-

Features

quired. That's an important cost reducing feature.

The scannable document also allows information to be prepared in a normal operating environment and eliminates the coding required in most keypunch operations.

An OpScan 17 system eliminates the need for keying. That's why this system is the first real cost breakthrough in the data conversion field.

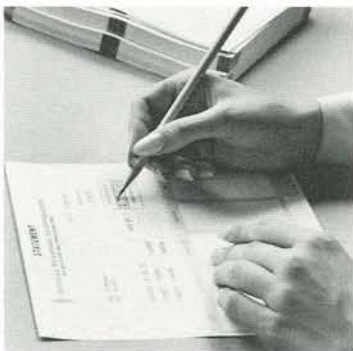
Features

There's complete versatility in almost any installation with an OpScan 17.

With simple forms, the scanner is programmed for different input and output formats. This



Reads Printing



the same format as records generated by manual methods. An edit control selects forms that lack pre-selected required information.

The OpScan 17's automatic feed mechanism accepts 350 forms and feeds at the rate of 300 to 3000 forms per hour—depending on their size.

The scanner reads hand-printed numeric characters. In addition it records ordinary pencil marks in the numeric and alphabetic areas of OpScan forms.

Check digit verification is another feature.

Forms ranging in size from 2" x 3 3/8" up to a full page size are read without any mechanical adjustment.

Documents and forms may be hand- or machine-encoded for the OpScan 17. Machine encoding may be from a computer line printer, credit card or matrix printer. The scanner reads both alpha and numeric information in hand-marked grid areas and numbers in blockprint areas.

The OpScan 17 system is extremely well suited for low cost turnaround documented processing. Information printed by computer may be re-entered with subsequently added hand-print information for a total input record. Now, low volume turnaround document processing can be cost justified!

gives great forms design flexibility as the scanner can easily be programmed to read marks or blockprint in almost any position on the form.

A reformat and edit feature allows the user to both edit and format output. An OpScan 17 user can have output records in



0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
7	7	7	7	7	7	7	7	7	7	7	7	7	7	7



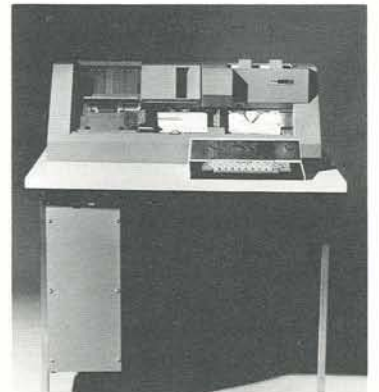
A Variety of Outputs

The OpScan 17 has been designed for output flexibility and interfaces with devices presently installed within computer centers.

It has the ability to communicate directly to a central computer, and can provide multi-station output through integration with a printer, cassette and/or CRT. The various output structures cover two broad areas—batch processing and remote data input.

Batch Processing

IBM 029 Keypunch—can be connected directly to the scanner and provides punched cards for computer input.





Decision Data 80- or 96-Column Card Punch—can be connected directly to the scanner. This configuration may be used as a totally complete processing unit with scanner and punch, or as stand-alone devices.

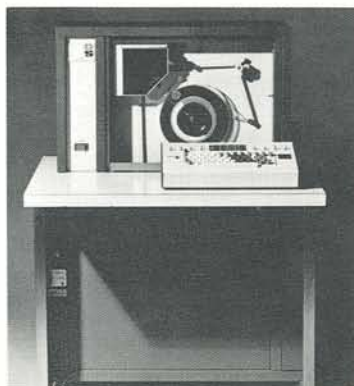
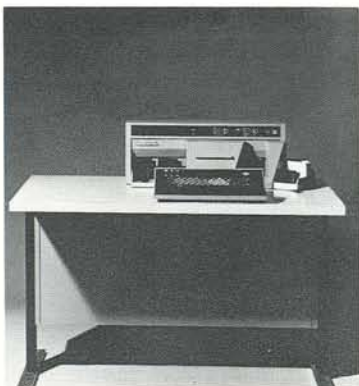
Mohawk or Honeywell Keytape—can be connected directly to the scanner and enables the user to operate the scanner and the Mohawk unit separately or as a total configuration.

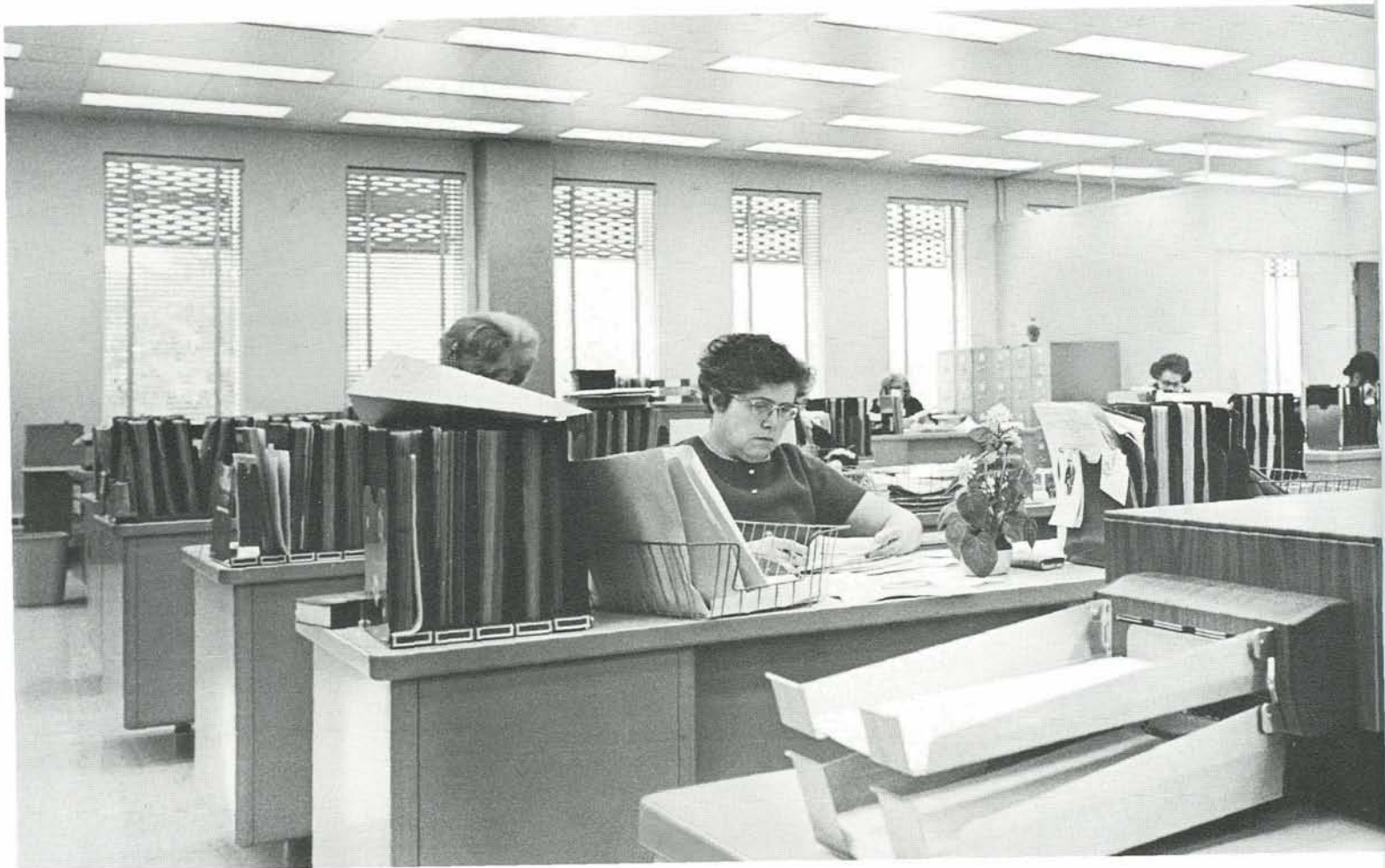
Remote Data Input
The OpScan 17 is designed to interface direct or remote on-line to many different systems. The Nova, PDP-10, Alpha 16, Data 100, Singer System 10 and Sycor can all be interfaced us-

ing one of the standard OpScan communication devices. The scanner may be attached to a cassette unit to store input data which is transmitted to a central computer at a specified time.

Special Configurations

To meet some special system requirements, the scanner can be equipped with both a CRT terminal and printer allowing the system to be used as a total input station. All devices can be controlled remotely or by the central computer. The OpScan 17 system is a complete low cost data input terminal.





Solves a Multitude of Data Handling Problems

Many approaches have been taken to the problem of transferring data from point of origin to a central computer. The scanning solution is the only one that eliminates keying and allows source documents to be used as computer input. This isolates the responsibility for accurate recording at the source. By proper recording in a timely fashion, the usual crisis in input scheduling and verification runs is eliminated and there's much faster transfer of data from collection points to the generation of final reports.

Industry and Science

A multitude of applications have been developed for industry. These provide fast turnaround of data plus the accuracy that is normally required to support large scale data collection.

Sales Call Reporting

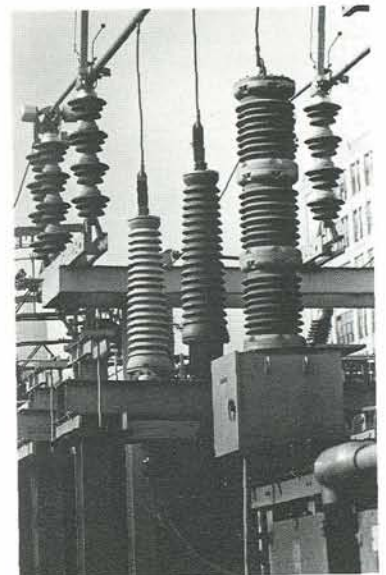
Timely sales call reporting is possible when the salesman marks a scannable two-part form in the field indicating expenses, changes in customer information and other pertinent data. This information is used as a follow-up document for the salesman and is mailed to a central office for scanning and subsequent rapid reporting.

Order Entry

Processing of orders from the field requires the recording of specific information on a scannable form. This data includes quantity, price and shipping information. This information is used as order verification and also serves as automatic input to your computer system.

Accounts Receivable Turnaround Document

Information concerning customers and amounts due may be imprinted by a computer





system. At time of payment this information is then automatically fed into the scanner. Any changes from the amount due are noted with handprinting on the turnaround form. Changes are noted on accounts receivable file and then adjusted by the computer.

Inventory Control

Inventory in plants may be maintained by plant personnel who record necessary material about movements and transfers on a scannable form. This information is scanned and kept as a control over stores.

Labor Reporting

Daily reporting of labor and job cost information may be maintained on a simple form producing both a document that shows verification of the job performed and is used for immediate input to the computer system for payroll and cost computation.

Medical Testing

A scan sheet is used to record historical data regarding medical background of patients. This is then automatically scanned. Additional information and

changes to the original information are also recorded on scan forms.

Research

Scan forms are used in research applications to record changes in data and the introduction of new data. This information is recorded at the testing location.

Hospitals

Scannable forms permit hospitals to have timely and accurate computer analyzed information on patient census, accounts receivable, drug control, discharges, nurses station reporting and other essential information.



Government

Time and Attendance Reporting

Information at various job locations is recorded by personnel on scannable forms. This information is then scanned and computer analyzed.

Material Transfer

The transfer of material is easily recorded on a scannable form at the location. This material transfer information may be scanned in either remote or on-site locations to provide immediate updating of inventory and material status.





Education

Administrative and Grade Reporting

Teacher clerical workload is reduced through a turnaround attendance or grade report scan form. These forms allow the teacher to make one mark to record absence, tardiness or grade. Thus, the teacher has more valuable teaching time available.

Student Registration

Course selection information is given in a timely fashion to students. Students select course information by writing on a scan form. Scheduling is expedited with a computer system.



Computer Aided Instruction

Students are tested on a routine basis using a scannable form. Test results are evaluated by a computer program to determine how well the student is meeting his/her educational goals and what action can be taken to better assist the student in the learning process.

Computer Input Terminals

Scanners are placed on-line to a central computer in remote school districts to report both accounting, testing, attendance and registration information. This automatically provides on-line computer input and allows sharing of large scale computer hardware and software.



Complete System Support

Optical Scanning Corporation is one of the largest manufacturers of scanners in the world with over 2,000 systems installed and 10,000 different forms now in use. Our broad spectrum of experience, knowledge and staff allows us to provide the total support you need for almost any installation.

We work with our users to see that installations are successful and properly maintained.

Graphic Arts—Forms Printing

Two printing plants—one on the East Coast and one on the West Coast—provide the delivery and support our users need. Optical Scanning Corporation specializes in quality forms that are

guaranteed scannable! We provide complete coordination of form and scanner.

Customer Engineers

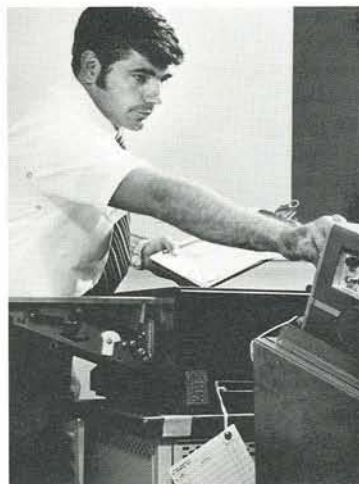
Factory-trained customer engineers are located in more than 60 cities. These engineers provide technical assistance and scheduled maintenance to insure continuing satisfaction.

Technical Support

A staff of qualified technicians is available for customer support in forms design and operation training. They are also available to hold detailed seminars.

Application Studies

A full range of studies is available describing specific problem solving applications.





Specifications

Performance

Throughput:
300 to 3000 sheets per hour
Auto Feed Mechanism:
capacity—350 sheets
Output Stackers:
Reject—100 sheets
Accept—350 sheets

Input Media

Densities
Standard OpScan Mark Density
Printer Line Compatible
Blockprint
Data Format
Standard and PLC Densities—
60 lines per sheet
Standard Density—
48 marks per line
Printer Line Compatible—
38 marks per line
Blockprint—30 lines per sheet—
16 characters per line
Paper
Size: 2" x 3 $\frac{2}{3}$ " to 8 $\frac{1}{2}$ " x 11"
Weight: 20 lb. to 60 lb.
Thickness: 0.004" to 0.012"

Formatting Control

Program Control Sheet
Simple set of marked forms
controlling data to be read. Fixed
or variable field lengths, output
order of data, etc. Also controls
arithmetic operations to produce
modulus 10 check digit, batch, and
record counts.

Output

029 interface
Mohawk 6400, 1100, NCR 735,
736, Tally keytape interfaces
Decision Data 9600 96 column
card interface
Decision Data 8600 80-column
buffered card punch interface
Techtran, Sykes cassette interface
Sycor interface

Data 100 Model 78 interface
Honeywell 700 Series Keytape
Basic communication interface—
free running asynchronous serial
ASCII interface
Controlled communications
interface—controlled
asynchronous serial ASCII
interface compatible with IBM
360/370 hardware and software.
Controlled communication with
retransmission interface—
controlled asynchronous serial
ASCII interface—allows for
retransmission after parity check.
Special interfaces available for
Hewlett Packard, Burroughs, DEC,
Data General computers and your
special configuration upon request.

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Nationwide Sales and Service