

MicroNews

Microdata Corporation, 17481 Red Hill Avenue, Irvine, California 92705

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REALITY™, Microdata's new information management system, is easily used by even nonprogrammers.

New **REALITY™** Computer Eases Data Management

The introduction of a new English language computer system designed by Microdata Corporation for easy use by anyone, has met with strong market acceptance.

Called **REALITY™**, the system makes use of **ENGLISH™**, a language that provides a means whereby even a nonprogrammer may easily input data to a file, perform maintenance of the file, retrieve records and obtain a formatted output report.

There is virtually no limit to the types of information management applications that may be automated in the future because of **REALITY**. Designed for

Executives Named To Corporate Staff

Donald W. Fuller, Microdata president, has recently announced several management additions designed to further strengthen the corporate staff.

George Olenik, former Microdata vice president of operations, has been named group vice president. The position he vacated has been filled by William J. Ackley.

Prior to joining the company, Ackley was founder and president of Xintel Corporation. He was previously associated with RCA, Pacific Data Systems and Redcor Corporation.

Noel Kile, former president of Sorbus, Inc., has been named director of customer service. In this newly created post, he is

users who need to handle large amounts of data subject to frequent change, **REALITY** can be used for real-time applications such as inventory control, credit inquiry, documentation control, production sched-

The **REALITY** system includes a central processing unit, a disc drive with 5-million character storage, a hard copy printer and a CRT terminal.

Use of microprogramming has resulted in a system that can handle multiple users with multiple on-line terminals and still provide substantially faster response than most large-scale data processing machines. The entire system resources of **REALITY** are managed by a virtual memory operating system implemented in microcode.

Since the system can be used in an on-line, conversational manner, information can be entered at its source. Terminals can be placed in such working environments as tool cribs, on the production line, or on the sales floor. The person most familiar with any given transaction enters the details. The system guides the user, points out errors, and edits the data as it is entered.

Through **REALITY**, as many as 32 remote users can utilize the system as though it were their own on-site computer — entering data, retrieving information or running programs in complete independence from the activities of the

Microdata Flexes Marketing Muscles — Establishes Dealer/Rep Networks

★ ★ ★ Reps To Handle Peripheral Lines

Establishment of a national network of sales representatives to handle Microdata Corporation's complete line of peripheral products, has been announced by N. H. Hawkins, vice president, marketing.

Microdata recently expanded its peripheral product lines with the introduction of a new series of cartridge disc drives and magnetic tape transports.

The new disc drives, manufactured at the company's Irvine, California facility, feature 100- and 200-track/inch recording density in single and dual disc configurations.

The tape transports offer 8.5 inch or 10.5 inch tape

densities, with 10 or 20 tracks and also have the ability to add self contained NRZI and phase encoded formatters.

Delivery of Microdata peripherals is 90 days ARO. In OEM quantities, the tape unit including a self contained phase encoded formatter is priced well under \$4,000 and the 10 megabyte disc drive well under \$3,500.

Current corporate plans call for the addition of other peripheral lines in the near future. Microdata will be announcing additional sales representatives.

The current sales representatives are:

Mountaintek, Inc.
P.O. Box 1355
Evergreen, Colorado 80439
303/674-5255

Costello, Little & Co.
8737 Venice Boulevard
Los Angeles, Calif. 90034
213/870-5951

Systems Marketing
Consultants (Hudson)
2225 Grant Road, Suite 6
Los Altos, California 94022
415/968-4180

Sheridan Associates, Inc.
10 Knollcrest Drive
Reading, Ohio 45237
513/761-5432

QED Electronics, Inc.
2916 Federal Street
Camden, New Jersey 08105
215/925-8711

Dealers Penetrate End-User Market

A nationwide network of authorized dealers has been established by Microdata Corporation to sell its recently introduced **REALITY™** computer systems.

"The formation of the dealer program marks Microdata's initial entry into the data base management marketplace," said Donald W. Fuller, company president, in making the announcement. "The **REALITY** system is ideally suited for a wide variety of businesses with real-time multi-terminal data management problems," he added.

Designed for such business applications as inventory control, production control and general accounting, the **REALITY** system incorporates an easy-to-use computer language called **ENGLISH™**. According to Microdata, operation is so simple that anyone who can read and write English, can use the system.

Because of its microcode capabilities, the new system is substantially faster than large-scale data processing machines. And, because it

hardware and software, it can handle up to 32 users while still providing extremely fast response.

A preliminary list of dealers and their territories includes:

Area: New Jersey
DCTI
108 Park Avenue
Verona, New Jersey 07044
201/239-5808

Area: Chicago
Systems Management, Inc.
10400 W. Higgins Road
Des Plaines, Illinois 60018
312/298-3840

Area: New York City
PPI Programs, Inc.
501 - 5th Avenue
New York, New York 10017
212/697-4466

Area: Baltimore/Wilmington
Display Data Systems
11350 McCormick Road
Hunt Valley, Maryland 21031
301/667-9211

Area: Washington/Baltimore
Datatel, Inc.
308 Washington Street, N.W.
Washington, D.C. 22314
202/342-4000

Area: Philadelphia
Keystone Computer
Associates
1055 Virginia Drive
Fort Washington,
Pennsylvania 19034
215/643-3800

Area: Southern California
Southern California Data
Products, Inc.
17805 E. Sky Park Circle
Irvine, California 92660
714/979-4213

Retail Clothier Brings **REALITY™** To Fashions

A new easy-to-use computer system, on-line at a fashion retailer since last November, is rapidly putting an end to the notion that computer operation is incomprehensible to the average person. All this may be unfair to programmers, but it's certainly a trend to watch.

Contempo Casuals, Inc., Van Nuys, California, is a retail chain that sells ladies' ready-to-wear. Specializing in the ever-changing young look in moderately priced sportswear, the firm deals in fashion on a large-scale. Contempo has fourteen stores spread over Southern California, with a

combined inventory that includes 15,000 items in stock and an equal number on order.

With that amount of goods and the caprices of the buying public, tight inventory control is required to reduce markdowns and avoid out-of-stock conditions. The typical answer is a computerized system. But the system selected by Contempo Casuals is anything but typical.

"I'm in retailing, not the computer business," states Contempo president Wil Friedman, "so I wanted a system my present staff could use." Today, Con-

Contempo Casuals

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tempo Casuals has such a system, used by everyone from Mr. Friedman to the shipping clerk.

Manufactured by Microdata Corporation of Irvine, California, the new mini-computer-based system is called REALITY™. Application, software and start-up were provided by Retail Oriented Computer Systems (ROCS), a firm headed by Jack Hill. The system is basically easy to use because of ENGLISH™, a new computer language Microdata developed expressly for REALITY, and because Hill added some highly sophisticated software to make the system both self-teaching and virtually error-proof.

When asked about the length of training time Contempo Casuals has experienced, Mr. Friedman replies "minutes or seconds. It's so easy to use that everyone here has experimented with it". This statement is substantiated by the fact that Contempo Casuals has had the system in operation over six months without an operating manual, computer department, or even a computer room. Members of Contempo Casuals' present staff were easily able to handle the operation of the

According to Microdata, its ENGLISH access language is so simple that anyone who can read and write English can operate the system. The vocabulary has the same parts of speech everyone encountered in grammar school — verbs, nouns, connectives, even synonyms. Vocabulary also contains Boolean and relational modifiers and can be custom-tailored to each terminal user.

Presently, Contempo Casuals has eight CRT display terminals that its people use to converse with the system. As Hill says, "You communicate with the computer as you would with people in your organization to make management decisions."

The system is used in virtually every phase of Contempo Casuals' busi-

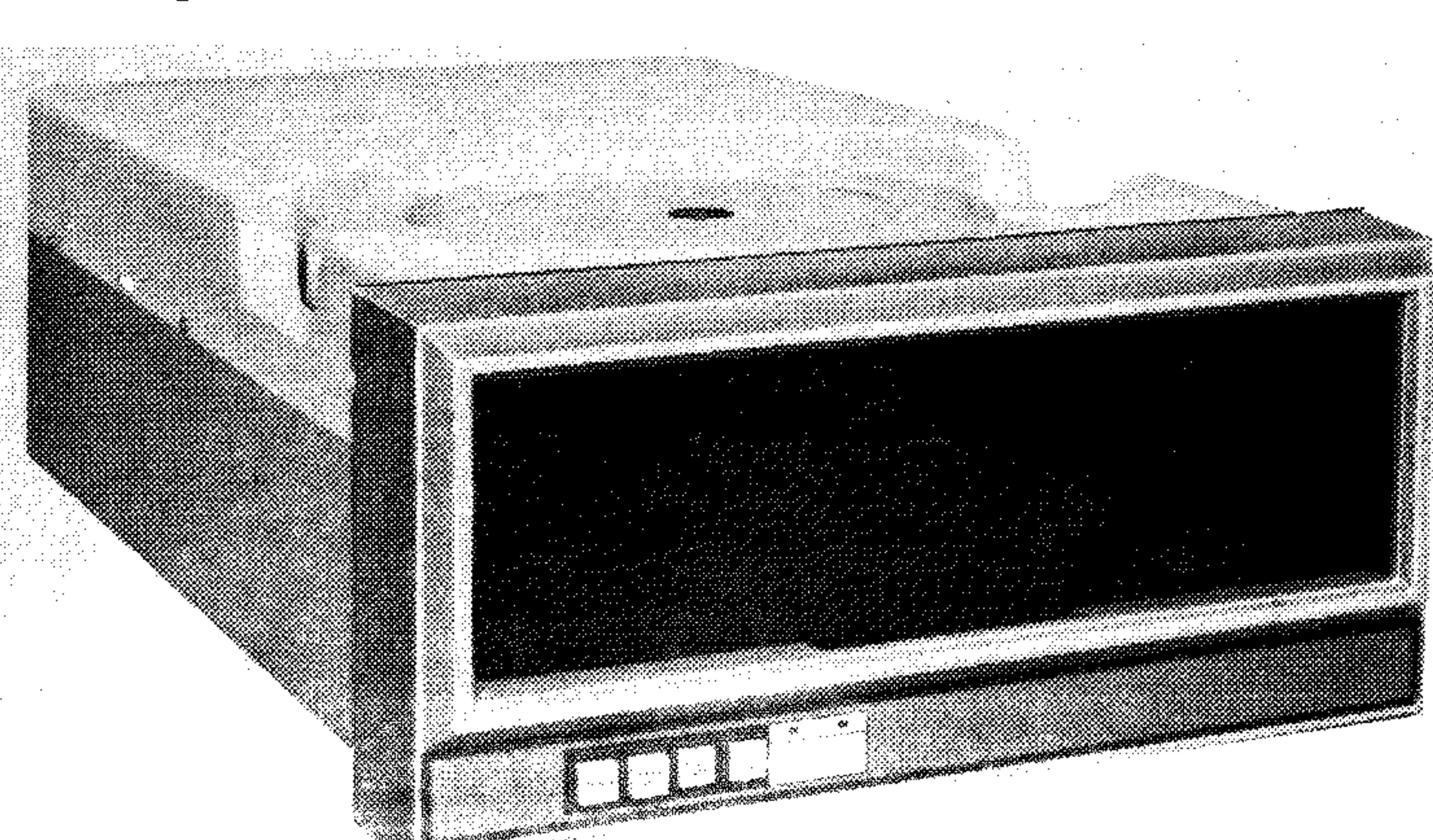
ness, keeping complete track of goods from birth (purchase order) to death (final sale). Information is provided on when and how much to order, generating purchase orders, receiving goods, dividing merchandise between the various stores, providing a complete sales history, and aiding reordering. All in all, it gets maximum mileage from the inventory investment by keeping goods moving.

REALITY starts into action when a Contempo Casuals employee types in a password no one could forget — his own name. The system responds instantly, providing a complete list of every operation that person is authorized to perform, selecting from thirty-nine available functions. Next to each operation, the CRT displays a code word that will start REALITY working on that specific task. The employee then types in that word, along with a short, almost conversational statement telling the system what to do. It quickly comes back with the answer on the CRT or provides a permanent written record via a line printer.

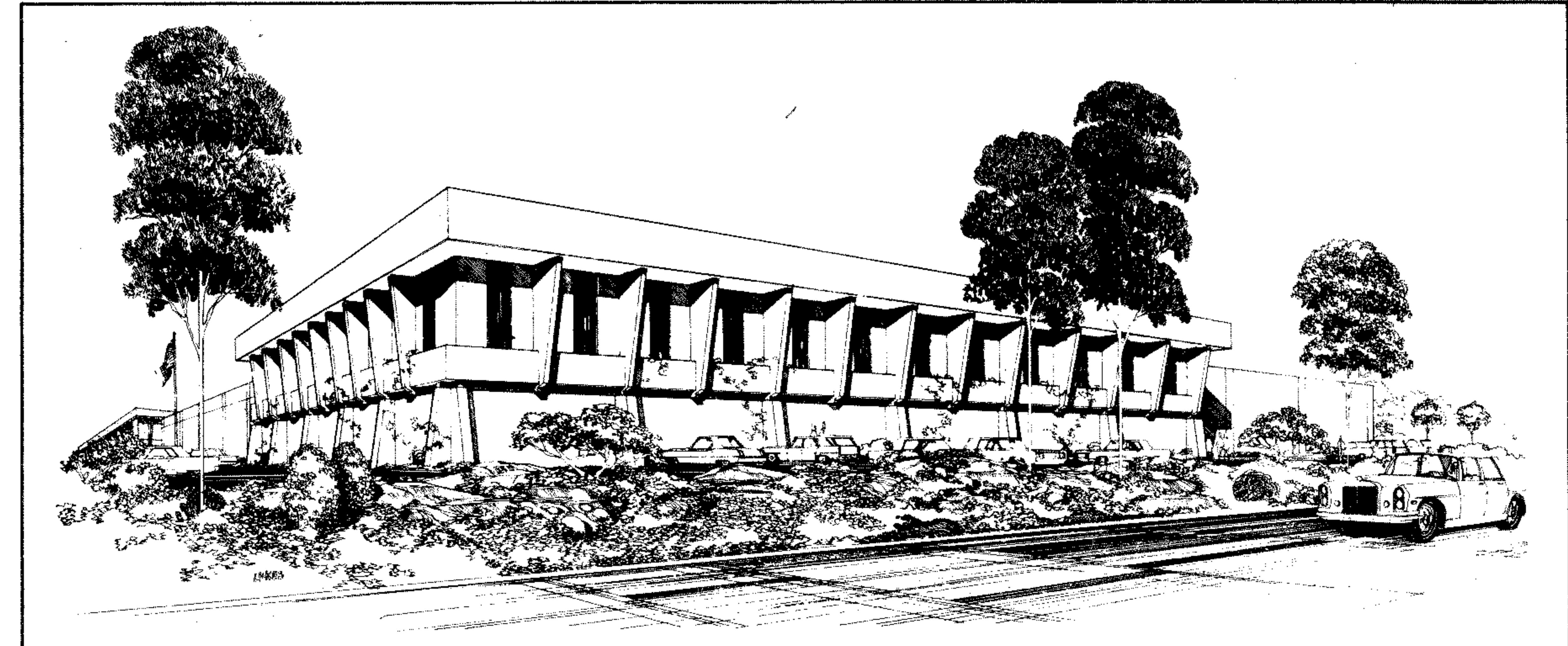
The system operates on-line, in real-time. Information is entered by the person data while details are still fresh in his mind. In the past, Contempo Casuals had used a service bureau which batched cards and ran them weekly. Now the firm is able to run data daily, taking sales information from stand-alone POS units in the individual stores.

Because people are people, some mistakes are bound to happen at the terminals. However, due to the error-proof software developed by ROCS, these mistakes never enter the system. REALITY prompts the operator into making the proper responses whenever an error is made. A continuing dialog between man and machine provides guidance by checking every entry, every procedure as it is performed.

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SERIES 9000 Disc Drives are specifically designed for small and medium sized computer systems.



MICRODATA'S new 48,000 sq. ft. building will house complex engineering and production facilities. Currently under construction, the structure is scheduled for completion in December, 1974.

Microdata Doubles Plant Size With New Building

Microdata Corporation has broken ground for the construction of a 48,000 sq. ft., two-story addition to its Irvine, Calif., headquarters.

"The new building effectively doubling our current plant size to approximately 100,000 sq. ft., is necessary to meet a growing backlog of

orders, as well as to prepare for future expansion of our systems and peripheral products business," Donald W. Fuller, company president, said in making the announcement.

The new \$750,000 facility, architecturally a duplicate of the present corporate

headquarters, will house much of the company's engineering and manufacturing activities. Completion of the new, fully air-conditioned structure is targeted for Dec., 1974.

The Don Koll Company, Newport Beach, Calif., will serve as general contractor.

Microprogrammable Minis Active On College Campus

In December 1945, ENIAC, the first electronic high-speed stored program general purpose computer was completed. Six years

of Cambridge University coined the word microprogramming to describe computer instructions that carry out numerous information transfers in a single execution cycle.

Cost-performance improvements as a result of 25 years of advancement in computer technologies have been almost overwhelming. In 1965 it became practical and possible to build computers with control units driven by microprograms. The concept was not exploited on a widespread basis until recently.

In large and medium scale computers, microprogramming provides the capability to emulate other computers, and to maintain upward/downward compatibility over a wide range of models within a computer series.

Microprogramming became a fixture in the computer industry by its introduction into the design of the IBM System 360 computer family. Smaller models of the computer now could have large instruction sets compatible with those of larger models. In addition, microprogramming provided emulation from previous machines in the IBM product line.

The small or so called "minicomputer" incorporating microprogramming now

exploits the advances in semiconductor and memory technologies with microprogramming far beyond the larger model computers.

cost memories are realized only by users of small microprogrammed computers.

A typical example of a microprogrammable computer's intrinsic value in education is evidenced in the case where an instructor has defined a system that utilizes a minicomputer, but that particular minicomputer is no longer available in the marketplace. He already has invested a considerable sum of money in developing software for the system in which the minicomputer is to be used. In this case, a microprogrammable computer will emulate the minicomputer and save the institution unnecessary costs, while providing it with a more reliable unit as well as with an important second source. The significant factor is that he can still use all the existing software he's developed.

(Can you imagine the cost savings to industry?)

In the university environment, the microprogrammable computer is an excellent cost-effective tool. Two computer systems that fit the university application are the Microdata 1600 and 3200 computers. The 1600 is applicable to both the undergraduate and graduate levels and is vertically programmable.

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Computers On Campus

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Data communications applications are another area for universities where RJE terminals are linked to a host computer on the main campus. In this case, a microprogrammable dual processor configuration is an ideal solution since it is the most cost-effective in that one processor handles the data communications lines while the other processor does the actual information retrieval and other processing functions.

Users groups are also extremely useful for microprogrammable computer users. The user program developments are compilers, emulators, specific features on the computer, data communication applications, etc. This is quite different from the fixed-instruction computer user groups.

A microprogrammable computer offers the educator an extremely versatile, reliable and economic solution to his teaching needs, while giving valuable hands-on experience for his students. Also, it allows the more advanced student who wishes to define different architectures and develop compilers to implement them on the microprogram-

the computers that are emulated can be used on the same computer and emulated one at a time.

The speed of the emulation will depend on the instruction mix; in some cases the speed of the microprogrammable computer is slower than the computer that is being emulated and in some cases faster. It depends on the mix of instructions, since every instruction being emulated is actually a microprogram routine of several instructions located in the control memory. The single most important factor, however, is that microprogrammable computers give students "hands-on" experience at a very low cost, with essentially no "turn-around" time.

For most instructors the selection of a minicomputer is a traumatic experience. They are exposed to numerous technical concepts, specifications and a variety of salesmen and skilled technicians from companies with one goal — to sell him their solution to his teaching problem. If a thorough up-to-date evaluation were performed with all minicomputer manufacturers, the evaluation could cost him more than the project



MICRODATA'S Series 1600 microprogrammable minicomputer.

Everyday Applications

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would like to use the computer to his advantage.

Microdata has been searching for an answer to the problem of making the computer's many services available to everyone. Microdata saw an immediate need to establish easy-to-use

between man and machine. The company understood that it had to make the computer perform many useful functions, becoming a trusted servant instead of an imposing stranger. And it found that the best way to get the most out of a computer was to make it possible for everyone from top management down to production line people to directly interact with the computer.

The result of this problem-solving involvement is REALITY, a fresh, sensible way to get information out of a computer. It's at its best in situations involving large amounts of information subject to frequent access and change. Its immediate applications are in the established areas of business requirements, such as production control, inventory control, billing, and general accounting.

Instead of using foreign-sounding dialects like ALGOL, COBOL or FORTRAN, REALITY speaks the language of American Business . . . simple, straightforward ENGLISH. Because of this, the most difficult part of operating the system is asking the right questions. To use REALITY, the user just asks questions in the form of short, simple, conversational statements. The system in-

stantly replies with the answers he needs in the format he needs them, delivering the information either on a television-like video display or in printed form.

Because REALITY is so easy to operate, Microdata slammed the hood shut. Anyone who can read and

system, so terminals can be put in such working environments as tool cribs, right on the production line, or on the sales floor. This way, the person most familiar with any given transaction enters the details while they're still fresh in his mind. Also, the manager can instantly analyze current data in his office, without waiting for the delays of batching and key punching.

REALITY sounds like a real breakthrough in computer utilization. It is! A truly unique feature of REALITY is a chain-reaction capability which continually updates information throughout the system. With it, a single entry instantly revises all affected information. Thanks to this feature, data is always current and correct!

Because the system emulates the operation of large computers, users can immediately take advantage of millions of dollars of available software. REALITY also works in high level RPG II as well as in ENGLISH. This means that the user of the popular System/3 will find that REALITY fits easily into his operation.

The computer is now a tool of man. Man can talk to it in ENGLISH, and get answers when he needs them. Finally, he can get behind the wheel and go!

Contempo Casuals

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For example, when a purchase order is being generated, the system reviews 18,000 possible numbers for accuracy. It even keeps track of the time and the date, so the operator can't enter "February 29" on the purchase order . . . unless it happens to be Leap Year! One instruction, requiring information out of the scope of the system, tells the operator to "see Anne". This is indeed a people-oriented system, with CRT terminals that are frequently moved around in the Contempo Casuals facility to go where the work is and the people are.

Even the minicomputer is in a work-a-day environment, which is enough to give most computer experts fits. In contrast to the traditional locked, airconditioned, almost antiseptic computer room, Contempo Casuals put the 16-bit Microdata mini in a doorless room opening on the warehouse. The line printer is next door, facing the same dusty concrete floor. An opening in the ceiling provides ventilation. And no, the computer doesn't mind if you smoke.

The REALITY system has been in continuous daily operation since November, 1973, without a single break.

ROCS performed a complete turnkey installation, without the extensive developmental time normally associated with a new computer system. Basic software developed here will speed application to subsequent users, and Mr. Hill states that ROCS can have a system producing in 30-120 days, depending on the customer's specific needs.

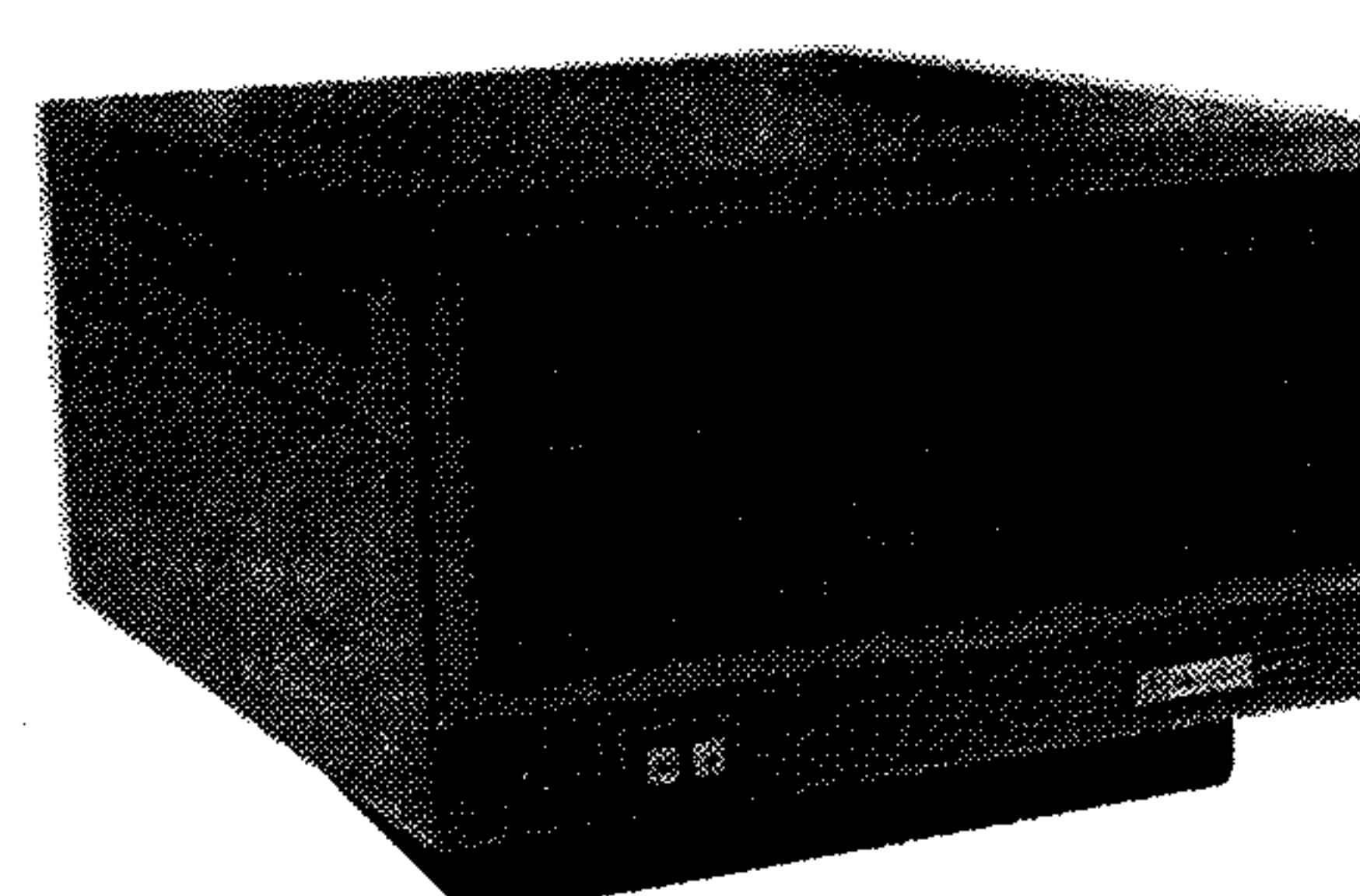
"Minutes or seconds" after that, someone will have already learned how to use it.

Reps

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DeBeck Associates, Inc.
2119 Grand Avenue
St. Paul, Minnesota 55105
612/690-1557

Allan Crawford Associates

6427 Northam Drive
Mississauga, Ontario,
Canada
416/678-1500
1299 Richmond Road
Ottawa, Ontario, Canada
613/829-9651
157 St. Charles St., W.
Longueuil, Quebec,
Canada
514/670-1212
640-11th Avenue, S.W.
Calgary, Alberta, Canada
403/261-0780
1820 Pandora St.
Vancouver, British Columbia, Canada
604/253-7136



REALITY

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other users. For users located in the same building as the system, communications with the REALITY computer are obtained through direct wiring. For remote users linkage can be provided through standard telephone service.

REALITY also offers an exclusive chain reaction function to update information throughout the system. With it, a single entry revises all applicable records to reflect the new data.

Many functions, such as report formatting, editing, audit trials and security

checks are performed automatically, unless otherwise specified.

Although ENGLISH is the operating language for REALITY, it can support coding in high-level RPG II, making it compatible with present System/3 programming.

The basic REALITY system, consisting of a computer, disc drive, line printer and CRT terminal, can be purchased for \$49,950. Though the purchase price includes only one CRT, the basic system will support four CRT's without the need for additional hardware.