**"And I want to present
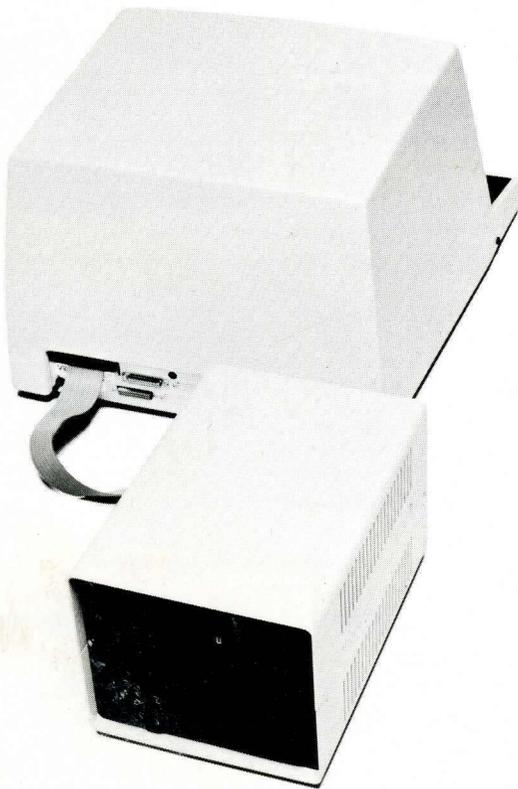my fellow Vector systems,
serving
business and industry . . ."**

In business and industry, the object is *success*.

In business and industry, the object is "success" — success of the business plan, the departmental function, or the industrial project. Achievement of success is increasingly aided by new advances in information technology, offering improved productivity, closer control, improved communications, lower costs, and more time for creative work.

The manager therefore asks, "How can I use advanced information systems to achieve success, and do it with minimum risk?" "How can I be assured that the tools we acquire will save time, *not waste it,* save money, *not burn it,* smooth work flow, *not disrupt it,* expand with growth, *not limit it,* solve problems *without creating new ones?"*

These concerns boil down into two fundamental issues:

How to achieve desired ends with minimum cost.

How to do it without getting bogged down in the effort.

Delivering the answers

Vector offers managers a credible response to these important questions — in the form of business information systems and supporting services that face these issues directly. They have, as a result, achieved wide acceptance in business and industry.

Vector systems are designed for maximum cost effectiveness. At any price level, they achieve the greatest possible speed, capacity, and multi-functional capability, made possible by extraordinary cost control.

Business views information technology as means to an end, not as an end in itself. So Vector's approach makes installation and operation nearly "transparent" to the business. *Our purpose is to allow business goals to be pursued without continuous attention to the tools being used.*

This has not been an easy task, because information systems go to the heart of the user's enterprise. Vector understands the needs of business and makes a conscious effort to meet these needs one by one. These needs define the criteria by which every business systems supplier should be measured.

Vector meets these criteria because Vector means business.

VECTOR — A PARTNER FOR THE LONG TERM

A strong, secure, growing company

Vector's rapid growth continues unabated, with expansion taking place throughout the world. This growth has been accompanied by an expanding staff of professional management with long experience in the computer and office systems industries. At the center, Vector's solid financial management assures company strength as this growth continues. For these reasons, users of Vector products can count on Vector as a stable partner for the very long term.

Solutions-oriented support

Vector systems are supported by authorized independent sales organizations in every area. They are, in turn, supported by teams of professionals at the home and regional offices, including sales, software, technical, training, and communications support groups.

These resources enable professional assistance in choosing equipment, installing it, and keeping it functioning effectively. Business executives demand worry-free use of information technology. Vector wants them to express their requirements, acquire the appropriate capability, and then turn their attention to other matters.

Proven reliability

If a solution is to be "worry-free" it has to operate "problem-free" for long periods of time.

Reliability begins at the design stage. Careful thought is given to electronic noise, shielding, heat dissipation, margins of error, and solid construction. Similarly, software engineers systematically consider every possible situation that may occur during operation, and design responses to each.

Reliability continues in manufacturing. Every component is first tested when it is received at the factory. After circuit boards are assembled, they are tested again as units and "burned in," which means they are operated for an extended period of time. Finally, each finished system is tested and burned in again before it is shipped. This is not a spot-checking process. Every system is completely tested.

Proven integrity of stored information

An information system functions as an automatic filing cabinet, storing and retrieving business information over long periods of time. Above all, the accuracy of this information has to be beyond question.

Vector begins by utilizing only the finest disk drive and memory components. In addition, most Vector systems feature Vector's exclusive "Automatic Error Correction." This remarkable feature automatically corrects changes in stored information that may occasionally occur due to normal wear of the recording media. And it works with both floppy diskettes as well as rigid disk drives, thus insuring the accuracy of backup diskettes.
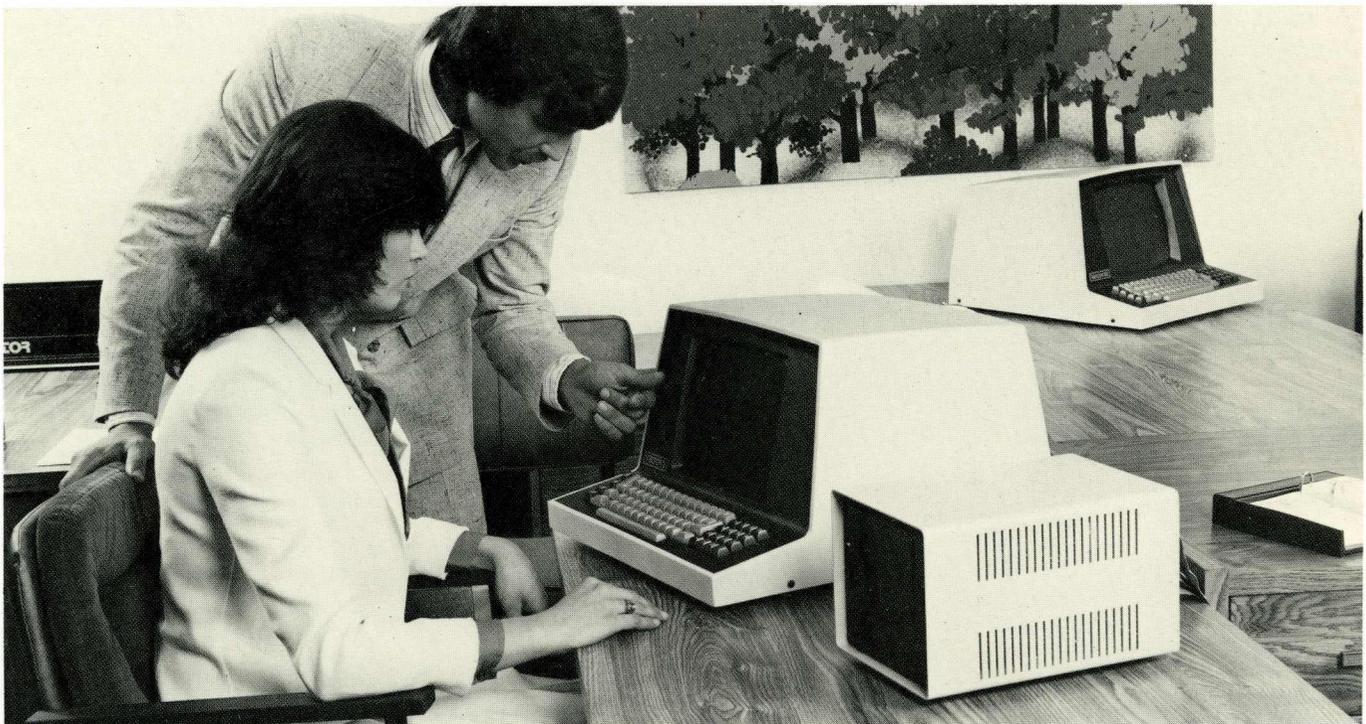
Due to these advances, Vector users spend their time *using* information, not correcting it, and entrust their systems to important jobs with confidence.

Adherence to industry standards

The computer and word processing industries consist of a bewildering array of companies and equipment. This can be viewed either as a problem or as an opportunity.

Vector systems are built upon the widely used "S-100 bus" — the spinal cord of the electronics — as well as the popular "CP/M operating system" and the Z-80 microprocessor. There are scores of circuit board suppliers using the S-100 bus, and hundreds of software houses that provide special purpose software requiring CP/M or the Z-80 processor.

Taken together, the use of these industry standards provide a degree of security and flexibility rare today. Security because proven developments throughout the industry are brought together in one product. Flexibility because special-purpose capabilities are available to handle the particular needs of almost any user.

Communications between systems

Savvy business users require the additional security in knowing an information system can operate in conjunction with other systems.

Vector offers low-cost communications software which allows transfer of files between a Vector system and another Vector or a non-Vector system. This includes IBM bisynch remote job entry terminal emulation, and a similar but less expensive option used only between two Vector systems. And Vector systems can also act as simple terminals in order to access the larger data bases available on commercial time-sharing services and large corporation mainframe computers.

Furthermore, the range of Vector systems and their compatibility with one another makes possible the use of several different Vector systems working together. One system can be used to enter and store raw information, and another possibly larger Vector system can be used to process that information, transferring the information using a removable floppy diskette or directly over a cable or telephone line.

Security through upgradability

No business planner would accept an information system that cannot grow along with the business of the company using it.

Different Vector systems of any type can be installed at the same location without difficulty. Almost without exception, the same software operates on all Vector systems, so that no matter which Vector system is used, the operator uses the same procedures.

In fact, most Vector systems, from the smallest to the largest, share exactly the same processing unit, differing only in the disk drives used. This modularity allows easy upgrades in disk capacity and speed as need requires.

Vector systems described as "Multi-Share" allow up to 5 terminals sharing a single system. As a "multi-tasking" system, each user can run almost any of Vector's application software while other users are doing completely different tasks.

In addition, both Vector hardware and applications software are subject to continual enhancement and Vector has a well-established history of providing access to these enhancements by existing users.

Vector is a leader in upgradability and compatibility between systems, providing an unprecedented degree of security for the user's investment.

Cost-effective and user-friendly customization

Users whose needs are continually changing, and systems houses adapting systems to special applications, require cost-effective means of creating new user-friendly software.

Responding to these needs, Vector systems are equipped with software development tools reminiscent of larger systems. Vector provides Microsoft BASIC, a powerful and popular business programming language offering an optional compiler for even greater speed. Other programming languages available from Vector include COBOL, FORTRAN, APL and Pascal. The SCOPE editor is a powerful word processor-like editor designed specifically for CP/M programmers using any language. RAID is an assembly language simulator comparable to microprocessor development systems.

To enable user-friendly software, Vector systems offer "memory-mapped video," a feature characteristic of dedicated word processing systems, allowing the image on the screen to change nearly instantaneously. In addition, systems may be configured to begin an application with the depression of a single key after turning the system on.

Vector application software generally has been designed for easy modification by experienced programmers. Vector's business accounting software is modifiable to meet the needs of specific businesses. Memorite III is the only word processing software available that allows independent programmers to create additional features on their own.

Systems that fit in anywhere

Frequently, the cost of additional space for a computer system, often requiring its own special office, is not considered in the acquisition cost, but it can be a significant factor. Except with Vector.

Vector systems are designed for use in the office environment, not the computer room. They do not require special air conditioning and they are compact, not requiring special cabinetry. In fact, the single user systems sit comfortably on the corner of a desk. This convenience is not compromised by noise; Vector systems are quiet. And they share an attractive conservative design with neutral off-white coloring that matches any decor.

The 3005 is the first such desktop system anywhere to offer the speed and capacity of rigid disk storage. It is as silent and as small as the smallest floppy diskette based systems.

Easy to learn and easy to use

Vector application software is accompanied by excellent documentation. Most outstanding is the Memorite III word processing software which includes a self-paced training Primer, with exercises accompanying every lesson. In addition, both Memorite III and Vector's ExecuPlan video-calculator software offer complete reference manuals that appear right on the screen in response to a call for help by the operator.

Every effort is made to keep applications software easy to use by both the novice and experienced operators. For instance, Vector's accounting software makes full use of command menus, requiring no memorization of commands. Memorite III tells the operator what to do during standard procedures, but experienced operators can work even faster by bypassing these reminders. With all software, commands are given to the system using simple abbreviations for the full commands, and the system responds with easy-to-understand non-technical messages.

These kinds of user-friendly features are of critical importance in making the user's investment quickly productive. And they make possible wide-spread acceptance by business personnel who do not have the time to fuss with complex technical procedures.

Cost-effective and multi-functional

The bottom line in any investment is its return. With information systems, the greatest rate of return is produced by lowering the cost of performing a single function, or by increasing the number of functions performed by a single system. Vector does both.

Comparing similar business information systems on the market reveals Vector's lower cost, often by a factor of two or more. And most of these competing systems offer only one of the several functions provided by Vector systems.

Vector systems perform true word processing, list processing, and business accounting on the same equipment. They also offer unique applications such as the ExecuPlan video calculator which is used for financial planning. And hundreds of special purpose applications are available from third-party vendors.

Even if all these capabilities are not required at the beginning, they are available whenever needed, added insurance for the user's investment.

APPLICATION OPTIONS FOR VECTOR SYSTEMS

Vector supplies a number of software and hardware options for Vector systems, meeting the needs of a wide range of users in business and industry. These options enable the user to obtain a completely "turn-key" system, that is, ready to use without any additional programming or interfacing.

Memorite III

Memorite III is a software option that converts any Vector system into a top-of-the line word processing system. Exclusive features include a built-in complete reference manual, fastest available editing due to a memory that can hold about 17 pages without accessing disk, and automatic spelling verification which learns NEW words as they are used. Other features include user-defined phrase library, merging of letters with mailing list, password security, alphabetized directory, full proportional spacing, dozens of other printing techniques, and many other time-saving, image-making features.

Mailing list

Mailing list is a program normally included with Memorite III. It maintains and prints lists of names and addresses, or any other simple list, and allows the user to create lists that can be merged by Memorite III into letters, for direct mail purposes. Lists can be printed on normal paper, mailing labels, or envelopes. Lists can also be sorted and new lists can be created by selecting certain types of list members. The user is allowed to store up to 15 items of information for each member of the list, and can modify the names and lengths of those items. The way the information is arranged when printed out can also be freely modified.

ExecuPlan

ExecuPlan is Vector's video calculator and financial planning software, converting any Vector system into a powerful desktop assistant for the manager. The screen acts like a large spread sheet, on which numbers and descriptions can be written. Results calculated from other numbers on the sheet can be made to appear anywhere desired. 16-digit accuracy, a large number of ways to move figures around, and the ability to print the screen image make this a very convenient tool. The screen image can be merged with Memorite III text to produce integrated reports with both tabular data and text.

CCA Data Management System

The CCA software provides a comprehensive list processing capability that can be used by programmers or experienced users for many single file applications in lieu of custom programming. Special features include the ability to calculate data items from other items, the use of indexed files to speed sorting and searching, unlimited record length, saved report formats, and user-defined data-entry screens.

Peachtree Business Accounting Software

Vector's Peachtree package offers a complete business accounting package for the very small business, consisting of Accounts Receivable, Accounts Payable, General Ledger, Payroll, and Inventory. Field proven by thousands of installations, and maintained directly by Vector, this is a reliable easy-to-use package for any first-time user. Features include menu-driven interaction, integration with General Ledger, automatic data verification, modifiable chart of accounts, complete audit trails, and a wide-range of management reports. Preprinted checks, statements, and invoices specifically designed for this software are available from third parties on excellent terms.

Statpak

Statpak is a professional library of statistical programs that can be combined with other applications programs or used alone. Library functions include single variable statistics, probability calculations, discrete and continuous distribution functions, means testing, regression analysis, and non-parametric statistics.

Communications

Vector offers a number of communications tools enabling Vector systems to send and receive information from other Vector systems or other makes. All systems include dumb terminal emulation to act as a terminal accessing time-shared data bases on other computers. Optional software includes 1) RBTE — IBM Bisynch 2780, 3780, 2770, 3741, 2961 remote job-entry terminal emulator; and 2) BSTAM, a similar but lower cost program that sends and receives files between Vector systems using asynchronous communications.

Programming languages

All Vector systems include Microsoft BASIC, Vector's ZSM assembler, SCOPE universal program editor, and the RAID assembly language debugger. FORTRAN, COBOL, APL, and Pascal are also available from Vector, as well as a large number of other specialized programming tools.

Printer

For use with Memorite III or other applications requiring typewriter-quality printing, Vector provides an optional 55 characters per second letter-quality printer with tractor-feed mechanism and an optional highly reliable automatic sheet feeder.

More information on these products and their uses can be obtained from your Vector representative and applications-oriented literature.

VECTOR SYSTEMS

SYSTEMS BASED UPON THE VECTOR 3 INTEGRATED COMPUTER AND VIDEO TERMINAL
(Disk drives are in a separate module.)

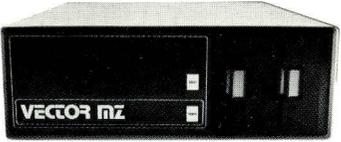| System	Disk storage (# of on-line characters)	Automatic Error Correction?	Estimated average relative speed**	# of free card slots	Max. # of termi-nals	Primary use
1600 ("VIP") ***	630,000 (one 5¼-in. double-sided diskette drive)	YES	1.0	2	1	Managerial workstation (with ExecuPlan software), data entry terminal, or companion system to a Vector system with two disk drives
2600	1,260,000 (two 5¼- in. double-sided diskette drives)	YES	1.0	2	1	General purpose word processing, general business accounting, special purpose business applications
2800	2,050,000 (two 8-in. double-sided diskette drives)	NO	1.5	2	1	Same as 2600, but where additional disk capacity is essential, or where compatibility with 8-in. CP/M diskettes is required
3005	5,014,000 (5¼-in. Winchester rigid disk) and 630,000 (5¼-in. double-sided diskette drive)	YES	1.7	2	1	Same as 2600, but where the additional disk capacity or speed is needed, or the user desires the convenience of instant access to stored information without having to load removable diskettes

(* All systems except MZ include as standard Vector's CP/M operating system, Microsoft other software is optional. MZ includes CP/M and Microsoft Basic.)

(** Estimated average relative speed measures the overall speed of each system carrying B is arbitrarily assigned a speed of 1.0. Example: A task that takes 10 minutes with

(*** The VIP is a 1600 combined with the ExecuPlan video calculator software

SUMMARIZED*

SYSTEMS BASED UPON AN 18-SLOT CHASSIS CONTAINING THE COMPUTER AND DISK DRIVES
(Terminal is a separate module — the Vector Mindless Terminal — included in system price.)

System	Disk storage (# of on-line characters)	Automatic Error Correction?	Estimated average relative speed**	# of free card slots	Max. # of terminals	Primary use
3105	same as 3005	YES	1.7	14	1	For industrial or other special purpose applications requiring the greater number of card slots and a larger power supply, as well as the speed and capacity of the rigid disk
5005 Multi-Share	same as 3005	YES	1.6	5 (with max. # of terminals connected)	5	For general purpose word processing, general business accounting, or special purpose business applications, when up to 5 users are required on the same system (A mixture of different applications can take place on various terminals at the same time.)
System B	630,000 (two 5¼-in. single-sided diskette drives)	NO	1.0	13	1	Vector's earliest system now used for industrial and special purpose applications requiring the greater number of card slots and a larger power supply
MZ	630,000 (two 5¼-in. single-sided diskette drives)	NO	1.0	14	1	Same as System B, but for use with serial terminals. No terminal is included.

BASIC, SCOPE program editor, RAID debugger, and at least one video work-station. All

out a typical business task that uses all parts of the system including a printer. The System
a System B may take about 10 ÷ 1.7 = about 6 minutes with a 3005.)

package.)

ADDITIONAL HARDWARE SPECIFICATIONS

System *	Terminal Type **	Disk Module			S-100 Card Slots	Parallel Ports	Serial Ports (RS-232) ***	Random Access Memory	Available PROM space	Disk type	Disk also accesses
		Height in/cm	Depth in/cm	Width in/cm							
1600	V3	3.4/ 8.8	8.3/ 21.1	5.7/ 14.5	6	3	1	56K	1 slot, 4K max.	1 5¼-in. dbl-sided floppy	Micropolis CP/M format
2600	V3	7.0/ 17.8	12.0/ 30.5	8.3/ 21.1	6	3	1	56K	1 slot, 4K max.	2 5¼-in. dbl-sided floppies	Micropolis CP/M format
2800	V3	7.0/ 17.8	17.5/ 45.2	20.5/ 52.0	6	3	1	56K	2 slots, 4K max.	2 8-in. dbl-sided floppies	8-in. single-density CP/M
3005	V3	7.0/ 17.8	12.0/ 30.5	8.3/ 21.1	6	3	1	56K	1 slot, 4K max.	1 5¼-in. Winchester disk and 1 5¼-in. dbl-sided floppy	Micropolis CP/M format
3105	MT	7.0/ 17.8	16.8/ 42.5	20.5/ 52.0	18	3	1	56K	1 slot, 4K max.	1 5¼-in. Winchester disk and 1 5¼-in. dbl-sided floppy	Micropolis CP/M format
5005	MT	7.0/ 17.8	16.8/ 42.5	20.5/ 52.0	18	5	4	56K per terminal	1 slot, 4K max.	1 5¼-in. Winchester disk and 1 5¼-in. dbl-sided floppy	Micropolis CP/M format
System B	MT	7.0/ 17.8	16.8/ 42.5	20.5/ 52.0	18	5	4	56K	2 slots, 4K max.	2 5¼-in. sgl-sided floppies	Micropolis CP/M and MDOS formats
MZ	MT	7.0/ 17.8	16.8/ 42.5	20.5/ 52.0	18	5	4	56K	2 slots, 4K max.	2 5¼-in. sgl-sided floppies	Micropolis CP/M and MDOS formats

V3 AND MT SPECIFICATIONS

(Assuming use of the video controller built into the systems.)

Height in/cm	Depth in/cm	Width in/cm	Display size	Image size	Character code	Keyboard type	N-key roll-over	Auto-repeat	Numeric pad
12.8/ 32.4	18.0/ 45.7	21.0/ 53.3	12-inch	80 x 24	ASCII	Capacitance	YES	Every key	YES

*   All systems use the Z80A processor.

** V3 stands for "Vector 3." MT stands for "Mindless Terminal." The Vector 3 is an integrated unit, containing the video display, the keyboard, and the computer electronics. In systems using the V3, the disk drives are in a separate module. The Mindless Terminal is a console containing a video display and keyboard, but no electronics. It is NOT a standard serial computer terminal. It is used with Vector systems that have a separate 18-slot chassis, which houses the computer and video controller electronics as well as the disk drives. With either the V3 or MT, the video image is controlled directly by the computer, using "memory-mapped video." Unless the system is modified, a serial terminal from another manufacturer may not be used with any system, except the MZ.

*** Uses the 8251 USART for both synchronous and asynchronous communications, with programmable data format and switch-selectable baud rate between 110 and 9600 baud. Baud rate can be altered by a factor of 4 by software, such as between 300 and 1200 baud.

VECTOR
VECTOR GRAPHIC INC.