

# WANG

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## The Industrial Revolution: another chapter written

The first integrated inventory and bill of materials system on a low-cost, diskette-based computer is now available. Called Manufacturing Management System, the new package is also available on Wang's disk-based and multiple work station computer systems and gives manufacturers the ability to coordinate their production floor and stockrooms for larger production runs, accurate job costing, effective labor scheduling, and reduced stock outs.

Marketing Manager, William Morris, explained that Wang's new package provides manufacturers with a system dedicated to the total manufacturing environment, not just accounting. "In the past, small computer manufacturers have taken a rather limited approach to manufacturing, concentrating on purely accounting functions like invoicing, payroll, accounts payable and receivable, and general ledger reports," Morris said.

These functions are extremely important, and Wang's Manufacturing Management System also provides one of the most comprehensive accounting systems available. But above and beyond accounting, the system delivers bill of materials integrated directly with inventory.

Wang's bill of materials processor provides multilevel product explosions and implosions from raw materials to finished goods. Although the integration of bill of materials and inventory is the lead item in Wang's new system, the inventory system alone is a major plus for manufacturers.

Job costing is also made easy with this system. The integrated system automatically and accurately combines manufacturing raw materials cost and labor distribution costs to obtain true job costs.

Now manufacturers can control marginally profitable jobs and eliminate those that could run into the red.

*(Continued on page 3)*

## Wang's Virtual Memory Systems: the WCS60 & WCS80



### 5000 and still going strong

At the end of last year it was announced that the 3000th Workstation for the Wang Word Processor family was shipped. The latest figure is approximately 5000, a significant number considering that the product was only introduced in June of 1976.

"Currently we are manufacturing and shipping Word Processor Workstations at between 350 and 400 units per month, with a six-week backlog," Frederick A. Wang, Director of Office Systems Marketing reported. "We quote Workstation numbers, rather than actual System 10A, 20, and 30 figures," he noted, "because it represents the true number of Wang Word Processor Keyboards now in use at customer locations."

The new 2200VS virtual memory processor that is contained in the two packaged interactive computer systems, WCS/60 and WCS/80, introduced recently, represents a major step by Wang Laboratories in its quest to be a billion-dollar firm in the 1980's.

The architecture of Wang's 2200VS processor and the virtual memory operating system of both the WCS/60 and WCS/80 systems are state-of-the-art technology. These systems, with expandable memory, disk drives and a broad choice of peripherals, meet the needs of 80% of the installed base of computer systems worldwide.

Based on the 2200VS processor, the WCS/60 and WCS/80 are the largest systems Wang has yet marketed. They are designed for business users by business people. Their heredity is from the business end-user environment. Excelling in ease of programmability, the system features the modularity and expandability for which Wang business systems are famous.

Perhaps the unique accomplishment is that the company has combined in the WCS/60 and

*(Continued on page 3)*

# In Dr. Wang's letter to the stockholders....

January 25, 1978

Dear Stockholders:

I am pleased to announce that for the second quarter and the first six months of fiscal 1978, the Company continued to set new records for revenues, earnings, new orders and backlog.

Revenues for the second quarter ending December 31, 1977, were \$47.1 million, an increase of 48% from the \$31.8 million reported for last year's second quarter. Net earnings were \$3,378,000, up 64% from the \$2,061,000 reported last year; per share earnings rose from \$.20 to \$.30.

Revenues for the six months ending December 31, 1977, were \$83.4 million, an increase of 48% from the \$56.2 million reported for the similar period last year. Net earnings were \$5,247,000, up 71% from the \$3,072,000 reported last year; per share earnings rose from \$.30 to \$.48.

For the four fiscal quarters ending December 31, 1977, the Company's revenues were up 46% from \$110.8 million to \$161.5 million. Net earnings increased from \$7.1 million to \$11.3 million, a 60% increase; per share earnings rose from \$.69 to \$1.06.

New orders for the second quarter were up 44% to \$55 million.

Gratifying as these results are, we believe

it to be more significant that this quarter represents the 9th consecutive quarter during which the Company's profits increased from the similar quarter a year earlier.

During the first six months of fiscal year 1978, orders for Word Processing systems were more than double the level of a year ago. Our prior investments in the development and marketing of these WPS systems are now contributing in a more material manner to the Company's performance. The computer business remains strong, and initial production deliveries of the high performance 2200VS systems are being made on schedule. These new multi-user virtual memory systems are expected to have an excellent long-range potential.

Halfway through fiscal 1978, we feel our results are very encouraging, and we continue to look at 1978 as a good year for the Company.

At their meeting on January 25, 1978, the Directors voted a quarterly dividend of \$.01 per share on the Company's Common Stock and \$.035 per share on the Company's Class B Common Stock. Both dividends will be payable on April 28, 1978, to shareholders of record on March 17, 1978.

An Wang, President

## Deliveries have begun on the Wang Computer MVP Series



*THE DESIGN FEATURES of the system can suit any office location. Pictured above is a standard configuration consisting of 32K of memory, three 2236D terminals, one floppy disk and ten megabytes of disk storage with a 240 line-per-minute printer.*

A powerful, multi-terminal, multi-user disk-based system, the MVP/CPU offers the user with concurrent multiple job and site requirements, the capabilities of larger computers but at a modest cost. Meeting today's data processing needs, the system can easily be expanded to meet tomorrow's growth.

The 2200MVP processor can now be configured to meet your requirements and new pricing has been established for this product. A new multi-partition operating system is available with all 2200MVP systems.

Wang Laboratories is now offering an excellent low-end multi-user system — the 2200MVP — which competes effectively with other multiterminal systems. Directly connected into a 2236 MXD terminal controller or attached to compatible TC modems for remote long distance operation, the system may support up to eight terminals. A printer can be connected to any or all of the 2236D terminals for local print requirements. The basic CPU functions of the 2200MVP processors are compatible to the 2200T and VP processors.

One of the special features of the 2200MVP is the Global Program Text which reduces total memory requirements by allowing common program text to be shared by more than one program. For example, KFAM would reside in memory only once, and would be shared by any of the other partitions in the system.

A standard configuration of the 2200 MVP consists of 32K of memory, three 2236D terminals, one floppy disk and ten megabytes of disk storage with a 240 line-per-minute printer. Delivery is 12 weeks after receipt of order.

*For more information, check MVP on Reader Response Coupon.*

## Protect Your Investment

Sign a Wang Maintenance Agreement and get priority service for your system!

Let us provide you with the key to longer equipment life.

We care.

*Check PMC on the Reader Response Coupon and we will send you a free brochure.*



## Before - # \$ % & # \$ % # & # \$ % Now - It's Easyform III

How many different forms did you use today that should be changed to meet a new requirement — but are too difficult to redesign?? How many times did you wish that the information was in a form that could be used later??

EASYFORM III is Wang Laboratories' latest software application package. This package, when installed, can be easily operated by a trained secretary or operator to produce the required forms in order to accumulate the information that is needed. Up to 18 forms with as many as 50 fields of information per form can be stored on a floppy diskette.

With EASYFORM III, all the information that is entered is always available for recall, for editing/correction, or for specific inquiry into a group of forms.

The minimum configured system (16k memory, dual disk drive and a printer) can provide the speed, accuracy and cost effectiveness to any business currently processing and editing a medium volume of forms handling.

Changing the design of the forms is as easy as making the decision to do so. So if there is a need for this in your company, Wang Laboratories can fill it.

If you would like to have specific ordering information on EASYFORM III, circle EASYFORM III on the Reader Response Coupon.

## WCS 60 & WCS 80 virtual memory system

*(Continued from page 1)*

WCS/80 the most useful and powerful capabilities of large computers with desired user-oriented interactive features of smaller computer systems. The simplicity, ease of use, and transparency of its operating system all combine to the advantage and benefit of the operator or professional EDP programmer.

The keystone of the WCS/60 & WCS/80 is the virtual memory system. If necessary, this feature allows a smaller system to back up a larger one. Response time of the system can be improved by adding real memory increments. Normally, found only in mainframe computers many times larger and more expensive, the 2200VS processor memory management technique — utilizing disk storage as an extension of the CPU's physical memory — gives each workstation the virtual memory area up to one million bytes. This means each user in a multiuser environment can have the equivalent of a one-megabyte computer. For the programmer, it eliminates the need to modularize or overlay programs. No partitions. No swapping. The additional benefit to the manager is substantially reduced programming costs.

This computer adapts to the manager's needs, not vice versa. The distributed processing offered by multiple workstations allows the



*A SOFTWARE demonstration holds most of the people's attention ... just one of the many activities held throughout the two and one half days of the 5th Annual SWAP Symposium in Boston last fall. With over 250 participants from 41 states and six countries, the Symposium offered lectures, presentations, question and answer periods, an evening banquet, plus as much time as desired to work with Wang equipment and products. Considered to be the best SWAP Symposium to date, plans are already in the talking stage for next year's 6th. For those who were unable to attend, but would like a copy of the proceedings, check Proceedings on the Reader Response Card, and mail it with a check for \$10 payable to Wang Laboratories, Inc.*

manager to bring the conveniences of the computer to his workloads, rather than bringing the workloads to the computer. Order entry, inventory control, production management, accounts receivables and payables, general ledger, and other business programs can be run at the source. And, while the office staff is working interactively at the workstations, the WCS/60 and WCS/80 can also do batch processing without interrupting of the interactive operations.

Other features that help to increase programming productivity include: an Integrated Program Editor, a Symbolic Debug Facility, utilities for Data Entry, File Maintenance and Automatic Report writing, utilities for Sort/Merge and Copy, and a variety of utilities and programming aids which enable the programmer to examine and modify system status, check current file and device status, and perform an assortment of other functions.

There are some 20 software programs that Wang Laboratories supplies with the WCS/60 and WCS/80. Offering one of three languages (COBOL, RPG-II, or BASIC) with the initial purchase, the remaining languages can be purchased at any time in the future.

*For more information, check 2200VS on the Reader Response Coupon.*

## Industrial revolution (continued from page 1)

Wang's Manufacturing Management System is available in several different configurations geared to varying user requirements. The basic system includes inventory and bill of materials for up to 3,000 parts and designed to 13,800 parts and/or from 10 to 30 levels of detail.

*For more information, check MMS on Reader Response Coupon.*

## Bay State honors Wang

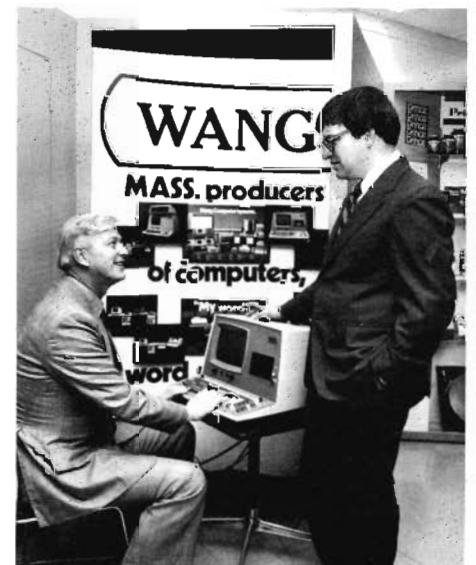
BOSTON — Wang Laboratories was one of three companies selected by the Massachusetts Department of Commerce and Development to display its products in a special three-month exhibit.

Running to the end of February at the Saltonstall State Office Building, the exhibit featured a Wang 2200 computer which is designed to provide extensive computing power to a variety of business and scientific applications.

State Commerce Commissioner, John D. Crosier said that the display is part of an effort to make Massachusetts products better known. "Many Massachusetts companies make top quality, highly useful products which are sold throughout the world," he said. "Since most of the products are unusual and command national and sometimes international attention for their quality and uniqueness, part of the reason for the exhibit is to reflect the preeminence of the State's high technology industry."

"Furthermore, through this display, I hope that the State's citizens will get to know more about our own industrial products," he added.

The other participating companies were Data International, Inc., of Pocasset and Prince Macaroni Company of Lowell.



*Ralph A. Crusius (seated), Assistant of Customer Relations at Wang Laboratories, gives a 2200 computer demonstration to Commissioner John D. Crosier, as part of the State's three-month exhibit of Wang products.*

## Try a first: use a twin sheet feeder



NEW ORLEANS — An industry first, a Twin Sheet Feeder for its letter quality daisy printers that feeds two types of letterhead at the same time, was introduced early this year by Wang Laboratories at the International Word Processing Association's Spring Symposium.

Eliminating the need for expensive, hard-to-handle continuous form stationery required by most word processing systems, Wang's revolutionary twin sheet feeder automatically feeds the common bond paper used in every office today. Capable of handling both business and legal sizes of stationery, the Twin Sheet Feeder substantially reduces operator intervention during printing.

Wang's new option for the 5581P printer in its family of Word Processors, feeds two types of paper, such as letterheads and second sheets, at one time from its two storage trays. Holding 200 sheets in each tray, it selects automatically the first page from the front in each tray and as many remaining pages as required by the document from the rear tray. The feeder automatically serves each document queued into the printer by the Word Processor Workstations operating that printer.

As each document is completed, the Twin Sheet Feeder automatically collates and stacks the completed documents sequentially in its

receiving bin which holds 400 sheets.

The Twin Sheet Feeder is the forerunner of a series of new products and enhancements resulting from Wang's continuing R&D program. The company will continue to announce new Office Systems Products.

*For more information, check TSF on the Reader Response Coupon.*

## U.S. Customs and the WCS20-- a good team



*FORMS PROCESSING — United States Customs Patrol in Washington D.C. uses a Wang WCS-20 Forms Processing System and Wang Easy Form software to manage capital equipment and property seized in smuggling and drug trafficking activities. Shown above, Customs Program Analyst Lester Garver, and operator Sandra Smith, review a location report on seized aircraft.*

## Paragon is the New society magazine

PARAGON, a new magazine which debuted earlier this month, offered 20 pages of computer information. Intended for all levels of personnel — management, analysts, administrative — PARAGON will feature articles about users, new equipment and/or software, hints about programming, company news, upcoming events, plus much more.

Published for the members of Wang Laboratories' Users' Society, PARAGON hopes to enlighten and inform by creating a forum of diverse material.

To insure its success, we need your help. By sharing with us your thoughts, suggestions, criticisms and ideas, PARAGON will be a more effective tool. To submit an idea or to have a question answered, direct all inquiries to the Editor of PARAGON.



..... Cut Along Dotted Line .....

### READER RESPONSE COUPON

Indicate which items are of interest, and enclose this coupon in an envelope and return to: Wang Laboratories, Inc., One Industrial Avenue, Lowell, MA 01851. The materials will be forwarded to the address shown on the label.

1. Send me information on 2200VS 2281P 2200MVP Easyform III
2. I would like to order Proceedings (\$10)
3. I am interested in MMS PMC TSF

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