

**Simple
Sophistication.
The Wang
2200VS.**



Wang's new 2200VS processor adds *simplicity* to computer *sophistication* and *power*.

We call it the new generation of computers because the 2200VS enables the business executive not only to *use* computer-generated information, but to *shape* the information as it comes to him, and actively *participate* in its generation.

Covering a broad spectrum from small to medium-scale computer systems, with additional optional memory, disk drives and a broad choice of peripherals, the 2200VS is so powerful it can meet the needs of about 80 percent of current and potential computer users.

Its features, combined with an outstanding price/performance ratio, make the 2200VS *relevant* to today's business world.

Relevant: The Wang 2200VS is user-oriented. Anyone can use it.

Relevant: The Wang 2200VS serves many different types of users and runs many jobs simultaneously.

Relevant: The Wang 2200VS protects your future. It grows with you as your business grows.

Relevant: The Wang 2200VS is for the first-time user. It offers ease of program development and implementation, power, and a smooth growth path from a small to a medium-scale computer. At a lower price than other systems in its performance range.

Relevant: The Wang 2200VS is for the large corporation. Its power, ease of operation and programming contribute uniquely to the benefits of distributed data processing.

Relevant.



Relevant: The Wang 2200VS is user-oriented. Call it menu-driven, conversational or interactive. Wang's 2200VS communicates with you and you communicate with it. Through fill-in-the-blanks or selection of a function from a menu on the system's CRT screen.

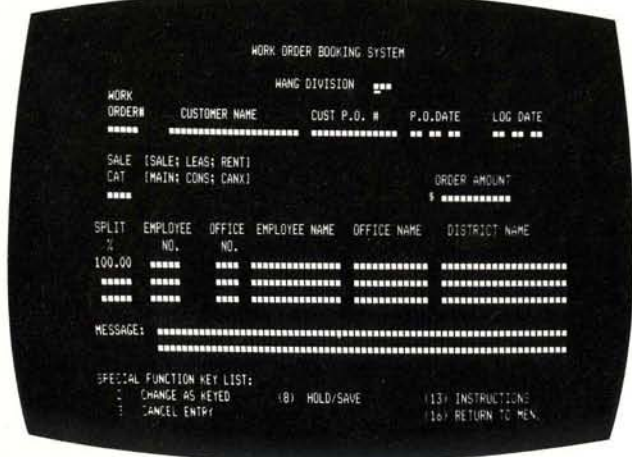
Imagine sitting for the first time in your life before a computer. Your reaction is panic. Your first thought almost certainly is "help!". And there it is, the HELP key. Press it and you get the first system menu. It will lead you through all the steps necessary to do what you want to do.

The HELP key symbolizes Wang's concern with the actual user who, now, can sit down at a computer and get what he or she wants. No other system offers this degree of user interaction.

And, imagine your staff sitting down at a workstation, starting to learn a job simply by answering the computer's questions. The system menu will step your staff through the execution of a program in a way that is almost self-teaching. And when you or your staff do make a mistake, the system is extremely forgiving.

Relevant: The Wang 2200VS handles many users, many jobs. In any comparison, small or large, there is always more than one job to be done and more than one user to be accommodated. There are orders to enter, goods to be shipped, invoices to be created and printed, inventory to be controlled. You need reports—on stock aged accounts receivable, transactions with your vendors, sales commission breakdowns, payroll.

The 2200VS can handle all these jobs all simultaneously. The system is so responsive you think you have all system resources to yourself.



With a continuous, uninterrupted growth path from a small WCS/60 to an expanded WCS/80 system, with onsite upgrades simply through adding memory and peripherals, your investment remains protected as with no other system. Indeed, your hardware protects your software investment as well. Because your application software runs independent of system size.

Offering telecommunications options with most industry protocols, Wang's 2200VS, no matter in what configuration, can serve as an independent, standalone system or within a distributed data processing network.

Relevant: For the first-time user. The 2200VS's low entry-level price, its power combined with its simple, end-user oriented operation, its expandability, and ease of programming make it truly the first-time user's system.

The 2200VS is a system for you and everyone in your office. You can walk up to it, key in a few responses to the system's screen prompts and get the answers you are looking for, right there and then.

The transition from manual or ledger-card system will be easier than with any other system available to you. One by one, you can transfer your applications to the 2200VS:

- Take the crisis out of order entry and shipment, speed billings and improve cash-flow.
- Take the guesswork out of inventory control, get precise answers when you need them and become aware when stocks drop below critical levels.
- Take the surprise out of order flood or drought, obtain timely seasonal analyses and projections.

The 2200VS is the only system that can give you the benefit of a small to medium-scale computer that you and your people can use and that costs you less than traditional systems.

Relevant: For the large corporation. The large corporation's problem is to distribute computer power throughout its organization, into departments, divisions and subsidiaries, at headquarters and at remote locations, without incurring crippling costs in hardware, software generation and manpower.

The 2200VS, because of its user-oriented features, is particularly well suited for individual departmental needs, including engineering, research and operations research staffs, as well as remote plants and field sales organizations, environments with high expertise in operations management but limited knowhow in data processing techniques.

The 2200VS's modular design not only allows each remote location to configure a system to its specific needs, but most important, one set of application software can be used in different locations on different size configurations.

The payoff of distributed data processing is real. With the 2200VS you will get there sooner.

In addition, the 2200VS, because it is a multi-job, multi-user system with a common data base, has an integrating effect on the applications run on the system. Giving each authorized user access to other users' data files, it integrates the different user functions into one overall system.

Relevant: The Wang 2200VS protects your future. Like no other system, the 2200VS protects the future of your business. It can be built from a low-cost, extremely powerful entry-level system to a system that gives you the power of a medium-scale computer at a quarter of the traditional cost of such a system.

Its smallest configuration, the system WCS/60, includes 64K bytes of memory, one workstation, one 10-megabyte disk drive, one diskette drive and a 240 line per minute printer.

Its largest configuration, the system WCS/80, can include up to 23 workstations, up to eight 288-megabyte disk drives, optional 9-track magnetic tape drives, one diskette drive and printers of various speeds.

Spanning a range from 10 megabytes to 2.3 billion of online disk storage and high-speed semi-conductor memory from 64K to 512K bytes, the 2200VS offers expandability which is without parallel in its class.

The 2200VS adds a new dimension to computers: sophistication made simple.

Simple: The Wang 2200VS processes transactions as they happen.

Simple: The Wang 2200VS runs batch jobs without intervention independently in the background.

Simple: The Wang 2200VS lets you control system functions without a complex language.

Simple: With the Wang 2200VS you can create exception reports yourself.

Simple: The Wang 2200VS fits software to system size automatically.

Simple: Process transactions as they happen, interactively. In the real world, orders do not arrive in convenient batches, nor do supplier invoices or customer inquiries. Transactions happen at random.

The 2200VS processes your transactions as they happen, interactively. The system is accessible to each user at any time. Your staff can query inventory levels and back-orders, update accounts receivable or payable, obtain a bill of materials explosion and corresponding parts inventory status, as this information is needed.

Simple: Run batch jobs in the background and forget about them. When you want to run a program, an easy to use procedure language allows you to specify parameters and define a sequence of operations in advance.

Using such procedures, you can initiate a job or job stream that runs either partially or completely independently in the background.

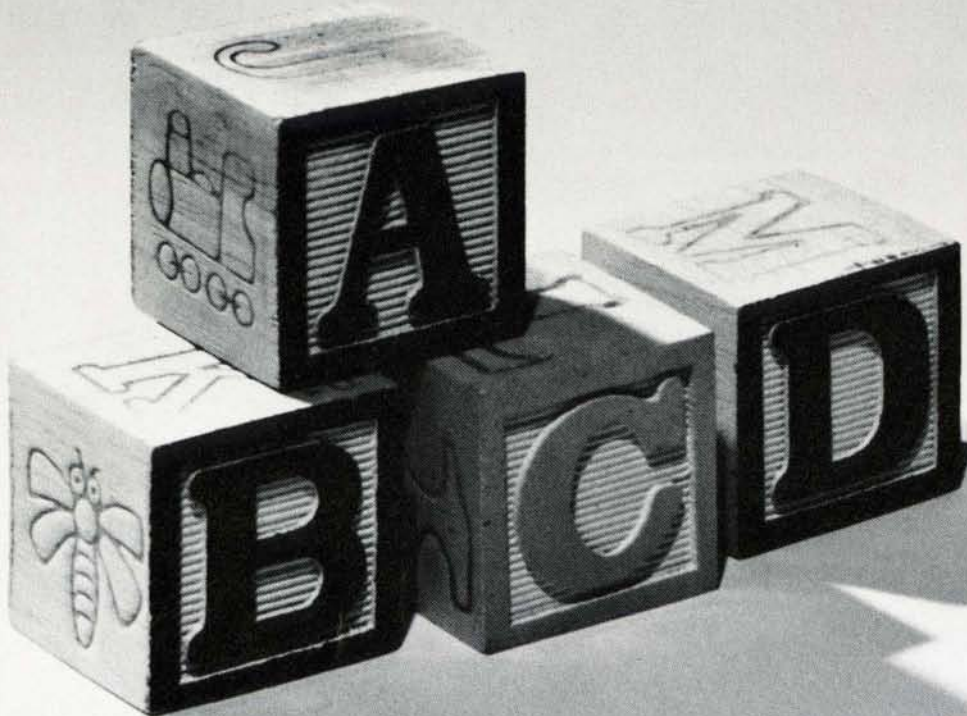
You can use this procedure language also to add screen prompts or delete them, specify permanent parameters to the system and suppress the corresponding prompts on the screen.

The 2200VS lets you tailor system operation completely to your needs making it transparent to you and your staff.

Simple: Control system functions interactively. Many systems must use a complex, special language to issue instructions to the system or control system functions.

Not so with the 2200VS. All system functions are easily invoked. You simply choose the desired function from a menu and respond to the prompts requesting parameter information for a particular function.

Simple.



You can interrupt program execution at any point. A "continue" command resumes program execution from the point of interruption. While the program is interrupted, you have access to all system functions—you can examine the status of open files or input/output devices, scratch or rename files, or begin debug processing.

Once these functions are completed, normal execution of the interrupted program can continue.

The 2200VS makes system control transparent—anyone in your company can learn to use the system.

Simple: Create whatever exception reports you need. Another example of the 2200VS's responsiveness to your needs is its report definition system.

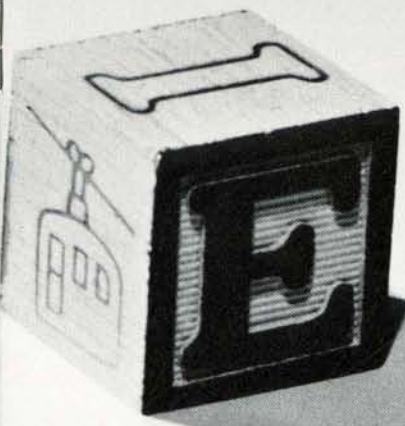
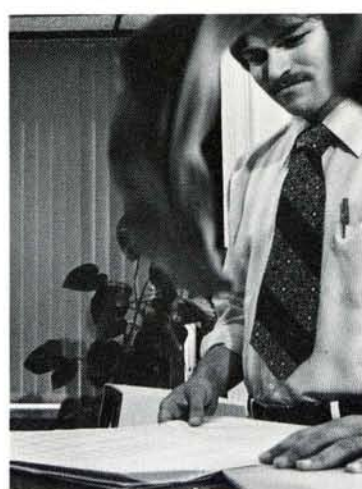
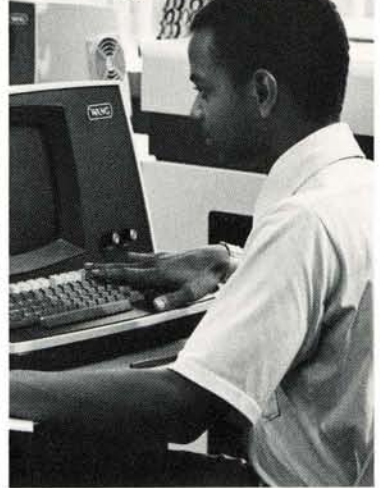
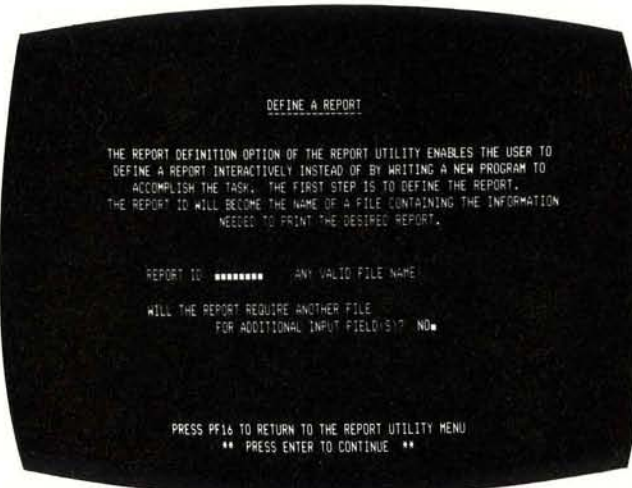
Again, you control all system functions by interacting with the screen. Following self-explanatory screen-prompts, you can select data fields, specify headings, sort data and define accumulators.

There it is. Your report. Exactly the way you want it. And when you want it.

Simple: Add users, hardware without software modification. Many a data processing department struggles to keep up with the software modifications dictated by system updates and new users to be put on.

With the 2200VS you can add to your system whatever you need—memory, storage, printers—without the penalty of having to modify existing software.

And you can add new users. Because the 2200VS is designed as a multi-job, multi-user system, you do not have to rewrite existing applications software.



Powerful: Implementing virtual memory, a new technique for a system in this performance range, the Wang 2200VS easily outperforms systems in its price class. At the high end of its performance range, it competes with medium-scale computers at 25 percent of their cost.

Powerful: Virtual memory operating system dramatically reduces programming effort because there are no system-imposed restrictions.

Powerful: By virtue of its operating system, the Wang 2200VS gives each workstation user the equivalent of a one-million byte computer.

Powerful: You can mix COBOL, BASIC, RPG-II, ASSEMBLER programs for the most flexible implementation of your programming needs.

Powerful: The Wang 2200VS virtual memory system uses system resources more efficiently than other memory management systems.

Powerful: A sophisticated security system protects your files and programs.

Powerful: With up to 2.3 billion bytes of online storage, the Wang 2200VS can satisfy even the largest of data base requirements.

Powerful: The Wang 2200VS offers unique interactive programming and text editing, utilities and symbolic debug features.

Powerful: The Wang 2200VS is backed by a company with worldwide sales and service and a proven 25-year track record in the computer industry.

Powerful: Outstanding price/performance ratio. At the low end, a small 2200VS system with 64K bytes of memory and one or two workstations offers extraordinary processing clout and throughput.

At the high end, a 2200VS, built to full capacity, rivals any medium-scale mainframe at a quarter the price.

In addition, *you save* when your system must grow. Because there are no costly hardware swap-outs. Your 2200VS enjoys a smooth transition to a larger system simply through onsite hardware add-ons.

You save in staff salaries. Because your 2200VS can be run by your current office staff.

You save because its outstanding programming aids cut software development time. Your programmers are more productive and can put more jobs on the computer faster.

You save because all of the operating system software, the system utilities, the Assembler language and your choice of high-level program language are included in the basic system configuration price.

Powerful: The virtues of virtual memory. Unique for a system in its performance range, the 2200VS offers the advantages of virtual memory operating system:

The operating system, not the programmer, fits a program to the available memory. The programmer is, therefore, free to meet the needs of an application most effectively without regard for program size.

Also, you can use the same software in different locations on systems of different sizes thereby obviating the need to customize software for different volume requirements.

By the same token, system expansion is accomplished simply. Add memory, add disk storage or any other peripheral device. Again, existing software will function without change on your expanded configuration.

Powerful.



Of all operating systems available, virtual memory offers the best way towards performance improvements by adding memory without changes in existing software.

Powerful: The equivalent of a one-million-byte computer for each user. The 2200VS is designed for many users running different jobs simultaneously.

You enjoy access to the system at any time. There is no waiting in line behind other users. The system makes you feel as if it made all system resources exclusively available to you.

In fact, your and any other users' programs can be as large as one million bytes each.

Powerful: Most popular business languages, COBOL, BASIC, RPG-II, ASSEMBLER. The 2200VS offers the business world's most popular language in a standard form, ANSI '74 COBOL.

BASIC is available to provide powerful problem-solving capability. Many features have been added which are particularly useful in commercial applications.

RPG-II is a high-level programming language widely used in business data processing applications. Almost completely compatible with other RPG-II applications, the 2200VS RPG-II has been significantly enhanced to make it suitable for interactive applications.

The Assembler language provides the application programmer with access to the powerful general-purpose instruction set of the 2200VS. It contains most of the instructions available on the IBM 360/370 in IBM format. It includes a number of pre-defined macros and permits user definition of macroinstructions.

Powerful: Efficient use of system resources makes for outstanding performance. The 2200VS makes extremely efficient use of existing system resources,

avoids program duplication and increases total performance:

- Users automatically share the same program in memory.
- Often parts of a program, even though necessary, are not used, or used only once, during a particular run. The 2200VS calls such parts of a program into memory only when they are actually being used.
- Data files can be shared by different users and accessed by different keys even with application software written in different languages.

Powerful: Sophisticated security system protects your files and programs. To preserve confidentiality, the 2200VS implements a sophisticated file protection and security system which you can tailor to suit the requirements of your specific applications. It allows you to place all your programs, procedures and data files in one of 28 file protection classes which are directly controlled by the security system administrators.

• For even greater performance, the 2200VS processor is complemented by independent Input/Output Processors. Each Input/Output Processor controls several peripheral devices. It handles all data transfers between them and memory, relieves the central processor of overseeing input/output operations and permits input/output processing to proceed concurrently with internal processing.

• For maximum use of peripheral resources, all print output is first saved on disk. When complete, it can be printed at high speed according to priorities you set.

Powerful: Extensive online file capability. The 2200VS can satisfy even very large online data base requirements. On the WCS/60 configurations, up to 150 megabytes of disk storage can be accessed. On the WCS/80 configurations, up to 2.3 billion bytes of online disk storage are available.

To conserve disk storage and increase overall system throughput, the 2200VS provides automatic data compaction removing all consecutively repeated characters from each record before storing it on disk and expanding it to its original format when read back.

Powerful: Interactive programming. Using the 2200VS's powerful programming aids, your staff will perform sophisticated operations on the system within minutes.

The symbolic debug facilities are completely interactive and allow the programmer to program and debug online using the system's screen. This means your programmers will write and implement new programs or make program changes with unheard-of ease and speed. The improvement in productivity is dramatic.

The 2200VS offers an impressive number of source file, object program and other utilities. File handling and file management are made easy through such important system functions as COPY, DISPLAY, PRINT, SORT, REPORT, DUMP, SECURITY and BACKUP.

A powerful system supported by a company with worldwide sales and service.

The 2200VS is the latest in a series of Wang business computers that combine a unique price/performance ratio with ease and simplicity of use — features which put Wang computers squarely into the hands of the end user.

Using this approach, Wang has built a user base of some 20,000 business systems worldwide. Wang has offices in over 100 cities in North America, and an international sales organization in 60 countries. In all, Wang employs over 3200 people with 1800 in direct sales, systems and service support.

Wang continues to be listed among the top ten growth companies in the U.S. and its present growth rate is well ahead of that of the computer industry as a whole. In North America and in many parts of the world, Wang is as near as the telephone.

North America:

Alabama
Birmingham
Mobile

Alaska
Anchorage

Arizona
Phoenix
Tucson

California
Fresno
Inglewood
Los Angeles
Sacramento
San Diego
San Francisco
San Mateo
Sunnyvale
Tustin
Ventura

Colorado
Denver

Connecticut
New Haven
Stamford
Wethersfield

District of Columbia
Washington

Florida
Jacksonville
Miami
Orlando
Tampa

Georgia
Atlanta

Hawaii
Honolulu

Illinois
Chicago
Morton
Park Ridge
Rock Island

Indiana
Indianapolis
South Bend

Kansas
Overland Park
Wichita

Kentucky
Louisville

Louisiana
Baton Rouge
Metairie

Maryland
Rockville
Towson

Massachusetts
Boston
Burlington
Littleton
Lowell
Tewksbury
Worcester

Michigan
Grand Rapids
Okemos
Southfield

Minnesota
Eden Prairie

Missouri
Creve Coeur

Nebraska
Omaha

Nevada
Reno

New Hampshire
East Derry
Manchester

New Jersey
Howell
Mountainside

New Mexico
Albuquerque

New York
Albany
Buffalo
Lake Success
New York City
Rochester
Syracuse

North Carolina
Charlotte
Greensboro
Raleigh

Ohio
Cincinnati
Columbus
Middleburg Heights
Toledo

Oklahoma
Oklahoma City
Tulsa

Oregon
Beaverton
Eugene

Pennsylvania
Allentown
Camp Hill
Erie
Philadelphia
Pittsburgh
Wayne

Rhode Island
Cranston

South Carolina
Charleston
Columbia

Tennessee
Chattanooga
Knoxville
Memphis
Nashville

Texas
Austin
Dallas
Houston
San Antonio

Utah
Salt Lake City

Virginia
Newport News
Richmond

Washington
Seattle
Spokane

Wisconsin
Brookfield
Madison
Milwaukee

Canada
Wang Laboratories
(Canada) Ltd.
Don Mills, Ontario
Calgary, Alberta
Edmonton, Alberta
Winnipeg, Manitoba
Ottawa, Ontario
Montreal, Quebec
Burnaby, B.C.

International Subsidiaries:

Australia
Wang Computer Pty. Ltd.
Sydney, NSW
Melbourne, Vic.
Canberra, A.C.T.
Brisbane, Qld.
Adelaide, S.A.
Perth, W.A.
Darwin, N.T.

Austria
Wang Gesellschaft M.B.H.
Vienna

Belgium
Wang Europe, S.A.
Brussels
Erpe-Mere

Brazil
Wang do Brasil
Computadores Ltda.
Rio de Janeiro
Sao Paulo

China
Wang Industrial Co., Ltd.
Taipei, Taiwan

France
Wang France S.A.R.L.
Bagnollet
Ecully
Nantes
Toulouse

Great Britain
Wang Electronics Ltd.
Northwood Hills, Middlesex
Northwood, Middlesex
Harrogate, Yorkshire
Glasgow, Scotland
Uxbridge, Middlesex

Hong Kong
Wang Pacific Ltd.
Hong Kong

Japan
Wang Computer Ltd.
Tokyo

Netherlands
Wang Nederland B.V.
Ijsselstein

New Zealand
Wang Computer Ltd.
Grey Lynn, Auckland

Panama
Wang de Panama
(CPEC) S.A.
Panama

Republic of Singapore
Wang Computer Pte., Ltd.
Singapore

Republic of South Africa
Wang Computers
(South Africa) (Pty.) Ltd.
Bordeaux, Transvaal
Durban
Capetown

Sweden
Wang Skandinaviska AB
Solna
Gothenburg
Arloev
Vasteras

Switzerland
Wang S.A./A.G.
Zurich
Bern
Pully

West Germany
Wang Laboratories GmbH
Frankfurt/M.
Berlin
Cologne
Duesseldorf
Hamburg
Hannover
Kassel
Munich
Nuernberg
Stuttgart

International Representatives:

Argentina
Bolivia
Chile
Colombia
Costa Rica
Cyprus
Denmark
Dominican Republic
Ecuador
Finland
Ghana
Greece
Iceland
India
Indonesia
Iran
Ireland
Israel
Italy
Jamaica
Japan
Jordan
Kenya
Korea

Lebanon
Liberia
Malaysia
Mexico
Morocco
Nicaragua
Nigeria
Norway
Pakistan
Peru
Philippines
Portugal
Saudi Arabia
Spain
Sri Lanka
Syria
Thailand
Tunisia
Turkey
United Arab Emirates
Venezuela
Yugoslavia

WANG

History: Dr. An Wang earned his Ph.D. in Applied Physics at Harvard University. His early work in magnetic core memory development contributed to one of the giant steps that made computers a part of modern life. Reliable, large-capacity memory was one of the biggest needs that had to be filled before the computer could become a commercial reality.

Wang Laboratories, Inc., then started in 1951, with the idea that we could find new and better ways to fill information handling needs.

Since then, we have grown to a \$135 million company, listed among the top growth businesses in the United States.

Our main manufacturing facility is located in Tewksbury, Massachusetts. Another facility in Burlington houses the Wang Data Center.

To accommodate Wang's rapid growth, we recently relocated our administrative headquarters and research and development operations from Tewksbury to a new facility in Lowell, Massachusetts, which almost doubles available floor space.

In North America, we serve our customers through over 100 Wang-staffed sales and service centers.

Our worldwide business operations employ some 3,200 people, among them 1,800 highly trained sales and systems specialists and customer engineers. We maintain 50 Wang-owned sales and service offices in 17 countries and are represented in 43 additional countries.

WANG

Wang Laboratories, Inc.

One Industrial Avenue, Lowell, MA 01851 / Tel. (617) 851-4111 / TWX 710-343-6769 / Telex 94-7421