

# Introducing: The Honeywell Information System

It's our family of people,  
products, and services.  
It includes new computer  
systems we call Series 60.





# It's a family that will keep our customers purring.

The Honeywell Information System represents a dedication of Honeywell people to helping our customers achieve the goals they've set for their computer operations.

It signifies a re-emphasis in our product and service offerings on results-oriented, cost-effective performance.

It symbolizes our way of doing business in the information systems arena.

It's our way of summarizing Honeywell capability, commitment and continuity in response to customer needs.

## It's a family with Capability:

We've just introduced Series 60.

Series 60 makes the promise of the future a reality now.

Series 60 has been designed to make it significantly easier to tap the power of the computer for results on the spot.

Series 60 offers new Honeywell advances in data base technology, information networking, and transaction processing—capabilities that will play a dominant role in computer operations of the next decade.

Series 60 complements Honeywell's already extensive product offerings. It includes seven computer models of advanced design, plus a variety of new peripherals.

With Series 60 we've enhanced our proven GCOS executive system and made it the basis for a graduated set of software capabilities tailored to match different levels of hardware performance.





# Major help for key industry specific needs.

The Honeywell Information System includes an extensive library of application software—system designs and modular, precoded packages specific to your industry. Whether installed as supplied or modified prior to use, they help produce quick business results, keeping your development costs down and increasing the return on your investment.

**Manufacturing:** Honeywell's Factor, a management information system for manufacturers, includes critical applications such as Bill of Materials Processor, Inventory Management, Material Requirements Planning, Production Scheduling and Control, Purchasing Management, Numerical Control, and Management Science techniques. Many of these tools can be efficiently brought together in a data base environment for increased control and productivity.

**Education:** Honeywell offers application programs in the areas of both administration (SCRIBE) and instruction (EDINET). SCRIBE programs handle tasks such as Attendance Accounting, Grade Reporting, and Class Scheduling. EDINET programs range from Resource Retrieval to Individualized Math Instruction and College Selection. Honeywell time sharing capabilities, running under the control of either GCOS or the Dartmouth Time Sharing System, are popular with both schools and colleges.

**Banking:** Honeywell supports a full array of banking peripherals and terminals, including extensive MICR capabilities and a high-performance

teller terminal. Honeywell banking packages plus data communications and Central Information File (CIF) capabilities can dramatically increase a bank's information processing and customer service capacity.

**Distribution:** Honeywell's MI-DIS is a system design for total control of all distribution functions, including Order Processing, Inventory Management, Vehicle Scheduling, Sales Analysis and Financial Management.

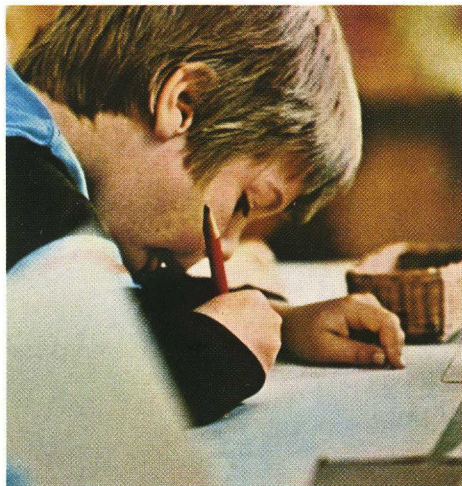
**Health Care:** Honeywell is deeply involved in and committed to the health care industry. Capabilities range from Patient Accounting and Hospital Financial Management to Clinical Laboratory, Catheterization Laboratory, and Intrahospital Communications applications.

**Government:** A large selection of customer-developed applications are available. For states, they include Employment Security Processing, Social Services, Revenue System, Motor Vehicle Registration, Driver's Licenses, Liquor Store Control, and Legislative System. And for cities or counties, applications range from Utility Accounting to Revenue Collection and Law Enforcement.

That's The Honeywell Information System story... The Pride of Honeywell... and yet it's only the beginning. We'd like to tell you a lot more. So why not call our local sales office. Or check the reader service card. Or drop us a note. Honeywell Information Systems (MS 061), 200 Smith Street, Waltham, Massachusetts 02154.

The Other Computer Company:

## Honeywell



The Pride of Honeywell.



DATA MATION MAY 74



processors. This capability means increased flexibility and efficiency in information networking operations.

Our DATANET front-end network processors handle communications without tying up the host central processor. (Honeywell has been an industry leader with this approach.) And our DATANET remote network processor performs chores such as remote job entry, remote batch processing, and line concentration to further improve data handling and reduce data transmission costs.

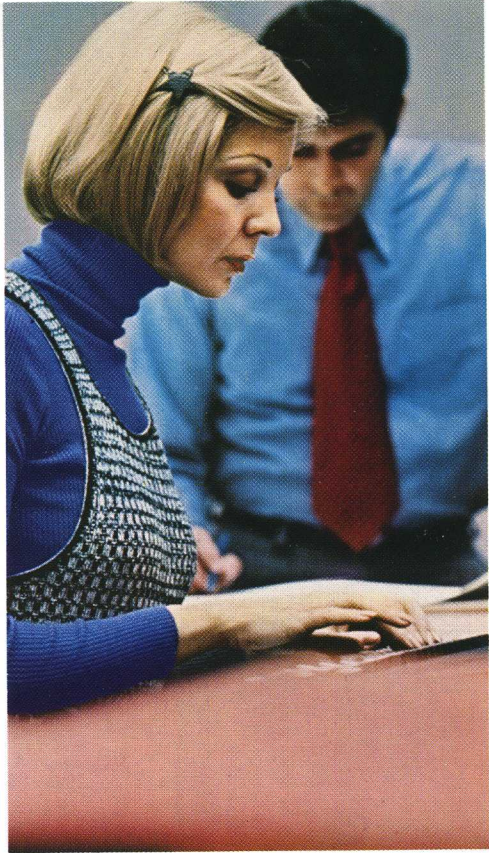
Our new integrated communications processors offer small- and medium-system users an advanced and powerful entry into data communications at a low cost. They can handle multiple lines and support a wide range of terminals.

Our Network Processing Supervisor (NPS) has established a new industry standard for data communications efficiency and control. NPS software supports not only transaction processing, but also all other modes of remote

access: remote batch, time sharing, direct program access, data allocation and distribution, plus store-and-forward message switching.

Advanced NPS features include data and system integrity protection, including error detection/correction, automatic restart/recovery and support of fail-soft operation in a dual configuration. Supervisory control functions monitor events in the network and exert control over these events when necessary. Statistical recording and reporting features provide detailed and summary information reflecting network operation, and customization features meet individual network requirements.

Our terminals provide additional efficiencies in line utilization to further reduce communications costs. This they achieve by means of built-in microprocessor controllers plus highly sophisticated control disciplines. Other advantages provided by these new terminals include connection flexibility and ease of operation.



The model 64/20 offers a new level of performance for medium-scale users. It includes a compatibility mode for easy transition from Honeywell Series 200/2000 systems.



# Data communications to unify your business.



The Honeywell Information System is by definition an integral and vital part of a business operation—the channel for timely information flow and processing to aid decision making.

Therefore, Honeywell has placed special emphasis on data communications, developing efficient ways to distribute information throughout your company . . . including to and from remote locations such as branch offices, warehouses, and factories.

We call this highly refined technique “information networking.” It can be a key to giving your business the timely intelligence and response capability needed to react to business changes and opportunities. Information networking can help you improve your customer service, tighten up your inventory, get faster financial information, spot developing business trends faster and more accurately.

In short, information networking can provide the information to improve management effectiveness and increase your company's ability to compete in a very competitive world.

## **How we help you build this capability**

Larger Series 60 systems have been designed to permit the sharing of a common data base, as well as the sharing of peripheral resources, by multiple





# GCOS is King.

For several years, Honeywell's General Comprehensive Operating Supervisor (GCOS) for our Series 6000 computers has been one of the most versatile and respected executive systems in the industry.

With this kind of success for encouragement, we've enhanced GCOS and made it the software standard for Series 60. We've made it available in several different levels of performance. And we have compatibility features to make the growth path to GCOS an easier one, regardless of a user's current hardware.

The reputation GCOS enjoys comes both from its superior ability to manage a computer system efficiently and from its reliability.

In addition to being a leading operating system, GCOS is also a leader in data base management and information networking and is rapidly becoming

ing a leader in transaction processing. These are the capabilities which make it much easier for users to access computer resources, and which are sure to play a major role in computer operations during the next decade.

With Honeywell's GCOS software, these capabilities are not just a promise for the future, but a reality now.

## **Flexible multidimensional capability**

The full range of GCOS capability offers proven multiprogramming, multiprocessing, local and remote batch processing, plus the latest concepts of file system design, communications and time sharing.

The dimensions of batch processing, remote access processing, transaction processing, and time sharing are integrated, thus providing a level of effectiveness beyond that attainable with multiple-system installations.

This merging of processing dimensions in concurrent operation permits the tailoring of the processing mix to individual installation requirements, including dynamic variation throughout the processing day.

## **Data base management efficiency**

The organization, processing, and timely availability of data affecting the state of your business are obviously of first priority. All else—hardware, software, programming languages—supports the need to get at and use such data.

For a fast-growing number of companies today, this means one central information source available to every part of the organization. A common data base lets you define real-world situations and relationships as they occur. It also eliminates redundancies.

Honeywell makes all this possible with a powerful data base management capability. And it provides these benefits without loss of confidentiality or security.

Series 60 offers enhanced capabilities for assembling larger data bases, sharing files, and modifying existing data bases more readily. Honeywell is also playing a leading role in helping to establish industry standards for data base management.

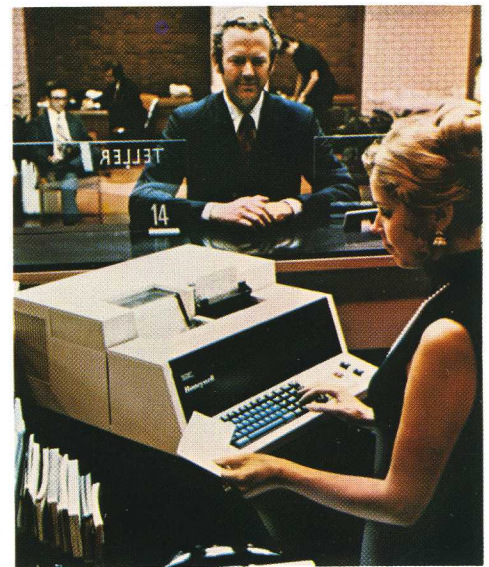
## **Transaction processing convenience**

Transaction processing offers the convenience of online data processing to a wide range of industries such as banking, health care, insurance, brokerage, distribution, government, transportation and manufacturing.

It's a technique that gets the computer involved in mainstream operations as they occur by allowing the processing, filing, or reference of up-to-date information from online communication terminals. The transaction processing terminals are used by sales clerks, bank tellers, factory workers, and others as a regular part of their job.

Honeywell's Series 60 with its GCOS transaction processing capability for larger users makes online transaction processing practical for many companies where before the complexity and cost of such systems were prohibitive.

To simplify system use, only data is entered at the terminal. Terminal users do not enter a program, control cards, or even program control statements. They don't even need to know that computer programs exist. For example, when a bank's customer makes a deposit, the teller immediately enters a transaction describing the deposit. The customer's bank record is updated right at the teller window.





# The power you want for the results you deserve.

## New high-performance hardware.

As you would expect from systems that initiate a new Honeywell family, our Series 60 represents the latest evolutionary step in computer design. For example, we've incorporated a number of advances based on our Multics System development.

But this is not technology to dazzle. It's technology designed to serve the user... to make a system more powerful, easier to use, and more reliable.

Features offered include multi-

programming systems architecture, large-scale integrated circuitry, solid-state memory, data privacy provisions, and extensive use of firmware.

Reliability was a major design objective for Series 60. Many features have been built into the systems to run continual checks on their accuracy.

If part of the system needs service, a fail-soft feature allows reconfiguration of system resources so processing can continue without interruption. The result is unexcelled availability of the system.



Model 66/80, a new large-scale system featuring Honeywell's famous GCOS executive software with advanced information networking, data base management, and transaction processing capabilities.

## New high-speed printing efficiency

Honeywell's new Page Printing System operates offline to handle a complete printing function.

Every sheet is an original of superior quality

The system is designed to reduce overall printing costs, improve turnaround time, and operate with output tapes generated by systems of any manufacturer.

The system employs a quiet, nonimpact electrographic process delivering 140 to 210 pages per minute (12,000 to 18,000 lines per minute).

Capabilities include the preparation of 132-column reports in 11" by 8½" format, the printing of forms as well as data, the cutting of forms to lengths specified by the user, and the collating and stacking of output automatically





Plus we're taking a number of other steps to provide users—regardless of their present systems—with a smooth and evolutionary path to increased performance.

So now, more than ever before, Honeywell has the capability you need for the results you expect.

If you're ready for your first or second computer, The Honeywell Information System is easy to understand, easy to install, and easy to use.

If you're an experienced user who is outdistancing the capability of your present equipment, The Honeywell Information System is the logical next step to increased performance.

And if you're a large user, The Honeywell Information System can provide superior efficiency in managed distribution of your company's information. Through use of Honeywell minicomputers, you can handle a complex information network operating in a variety of processing dimensions.

### **It's a family with a Commitment:**

Honeywell's dedication to customers is the cornerstone of The Honeywell Information System.

With the development of Series 60, we've provided for the protection of our customers' current investment in hardware, software, and programming. Series 60 lets you continue with your current Honeywell equipment for as long as you want. And when you're ready to move to increased performance, you can make the move easily and with your application investment intact.

For example, our medium and large Series 60 systems have a compatibility mode which not only allows you to run existing programs written for your current hardware, but also lets you mix these programs with new ones written expressly for the new system.

### **It's a family with Continuity:**

All kinds of changes affect the future of your computer operations: changes in your business, changes in your information structure, changes in computer technology and processing techniques.

With this in mind, as we introduce and continue to expand the capabilities of The Honeywell Information System, we're building a unique ability for Honeywell users to manage these changes and be prepared for the future.

We're doing this by evolving toward standard software and operational procedures that interface between the computer and your business. So as your processing needs grow or change in character, you'll be able to adjust easily. The way you go about operating your system will remain the same.



The new Model 62/60 is a low-cost first step into Honeywell's new Series 60 family. It has the potential for easy and unlimited growth.



# The Other Computer Company strikes again: **RESPONSE/2000**



The Other Computer Company:  
**Honeywell**



# Series 2000: A response to medium-scale users across the board.

**Series 2000** - a new high-performance family of cost-effective medium-scale systems. Full compatibility is assured for Series 200 users. Attractive compatibility and conversion aids are provided for others.

**OS/2000** - a new operating system offering dynamically scheduled batch and communications processing with up to 15 job functions handled concurrently. Page 4.

**DATANET™ 2000** - a new front-end processor to off-load the CP of its communications overhead and maximize Series 2000 information throughput. Complete communications control software is provided between OS/2000, DATANET 2000, and the communications network. Page 6.

**Terminals** - an advanced 700 Series of CRT terminals to capitalize on the distributive power of Series 2000 and DATANET 2000.

**Peripherals** - a full peripheral complement with special emphasis on disk drive flexibility and performance.

**Response** - a continuing commitment by Honeywell to provide a complete product and service offering that can respond to user needs for the Seventies.

## A medium-scale family of five

Model 2040 - an easy way to move into a medium-sized system. Series 2000 hardware and software plus the lean price structure of Model 2040 make this model the perfect introduction to a new world of multiprogramming and communications.

Model 2050 - for those who want fast upgrade payoff. With twice the internal transfer capability and twice the memory of the 2040, Model 2050 is excellent for multijob operations with data communications.

Model 2060 - with more memory and I/O capacity than the 2050, Model 2060 can help you build solid multi-partition access capabilities with data base file structures.

Model 2070 - doubles the I/O capacity of the 2060. It's the big medium system for advanced communications networks that require a lot of peripheral capacity, interactive data base processing, and high job throughput.

Model 2088 - a dual-processor with large system performance at medium system prices. It offers high internal transfer speed, 1M

character memory, vast peripheral resources, and the Mod 4 High Up-Time real-time operating system for critical data communications and processor-shared file activities.

## CRT console for improved operation

The Type 220-8 Visual Information Control Console offers interactive message transfer, status display, and better operator control of any medium-scale Series 200/2000 system. A solid-state full data keyboard with numeric pad is used for data and parameter entry. An adjacent control panel provides hardware system control functions. Screen size is 1920 characters (24 x 80 matrix). You can add another display screen, a serial printer, and a remote 23" display monitor. The console, keyboard, and display are arranged in a free-standing desk-like configuration.

Check 280 on reader service card.

## Disk peripherals for better data access

High performance, large capacity, removable disk pack drives are featured peripherals with Series 2000. Types 275, 277, and 279 drives offer two or three

SERIES 2000 MODELS					
	2040	2050	2060	2070	2088
Memory (K = 1,024 char.)	49 to 131K	98 to 262K	131 to 512K	131 to 512K	512K to 1 mil.
Cycle Time	1.6 $\mu$ s/ char	1.6 $\mu$ s/ 2 char	1.14 $\mu$ s/ 2 char	1 $\mu$ s/ 4 char	.75 $\mu$ s/ 4 char (each processor)
I/O Channels (all variable speed)	12	12	16	16	32
Peripheral Address Assignments	32	32	48	80	192
Operating Systems	Mod 1, OS/2000, Mod 4				Mod 4 High Up-Time System
<b>Other Features</b>					
Interactive CRT Console (1920 char. screen)	Opt.	Opt.	Opt.	Std.	Std.
Floating Pt. Hardware	Opt.	Opt.	Opt.	Std.	Std.
Typical System Rental Range	6-13K	12-17K	16-24K	22-40K	37-70K
and Purchase Range	240-520K	480-680K	640-960K	880K-1.6M	1.5-2.8M

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Check circled reader service card numbers above for information on specific models





Series 2000 Model 2060

spindles per control, expandable to eight per control. The control on Type 277 and 279 drives buffers data independent of the CP for more efficient I/O and peripheral operation. Fast access times and high data transfer rates make these devices especially well suited to Series 2000.

Check 286 on reader service card.

## Visual improvements in CRT's

Models 765, 775, and 785 of the 700 Series offer single, dual, or clustered CRT keyboard/display capabilities. All models feature solid-state keyboard and multiple-key depression without error. Models 775 and 785 include an adding-machine-like numeric pad for data entry. All models include vertical and horizontal line drawing, automatic tabbing, message flashing, and data entry repeat capabilities.



Check 287 on reader service card.

DISK Specifications/Devices	Type 275	Type 277	Type 279
Seek Time (ms) Min.	20	10	10
Ave.	57	34	30
Max.	120	60	55
Latency (ms)	12.5	12.5	8.3
Ave. I/O Rate	208,000	714,000	1,074,000
Disks/Spindle	11	11	12
Min. Spindles/Control	2	3	2
Capacity/Spindle	18.4M	64M	133.3M
Max. Capacity/Control	147.2M	512M	1.06B

CRT Specifications/Devices	Type 765	Type 775	Type 785
Transmission Mode	asynchronous	synchronous	synchronous
Speed (bits per second)	1200	2000/2400	2000/2400
Display Capacity	1012	1012	2024
(lines x characters)	22 x 46	22 x 46	22 x 92
No. of Units per Control	1-20	1-20	1-20





# A responsive operating system: OS/2000

As many as 10 job operations plus five data transcription routines can be processed concurrently under OS/2000. Jobs in multiple variable partitions (MVP) with hardware protection are scheduled by a Job Scheduler which fits in any available 8K area of memory. Partitions are shuffled dynamically within memory to accommodate larger jobs, and no recompilation of programs is required to insure their ability to reside in a given area of memory. (See figure below.)

The Input Reader, scheduled within a partition, processes job control information and stores resource information on disk. The Job Scheduler acts on this information to schedule a job according to memory and peripheral resources required and scheduling priorities assigned. Peripheral resources are allocated from a device-pool to ensure dynamic device reassignment.

To accommodate an urgent priority job, a roll-out/roll-in capability will roll an active job out of memory onto a disk, then roll it back into memory upon completion of the urgent job.

Beyond scheduling priorities, a user-selectable dispatching priority scheme governs the amount of processor time received by jobs and allows for maximum system control and throughput. Linear dispatching, "round robin" dispatching, or combinations of the two can be selected.

Complete flexibility in input and output media is available. Dynamic device reassignment lets the user defer selection of print and punch media until execution time. Added facilities for data transcription offer efficient access to print and punch files while concurrently processing batch jobs, data base demands, and communications transactions.

**Data communications control.** An OS/2000 Communications Controller provides the software link with either the DATANET 2000 communications processor or the Type 286 Multi-line Communications Controller.

For DATANET 2000, the link provides the means for sending data to a symbolic terminal and retrieving data from symbolic queues. Software resident in DATANET 2000 removes line

control, message handling, and queuing and routing functions from the central processor. With the Type 286, the OS/2000 Communications Controller controls overall communications activity and flow of data.

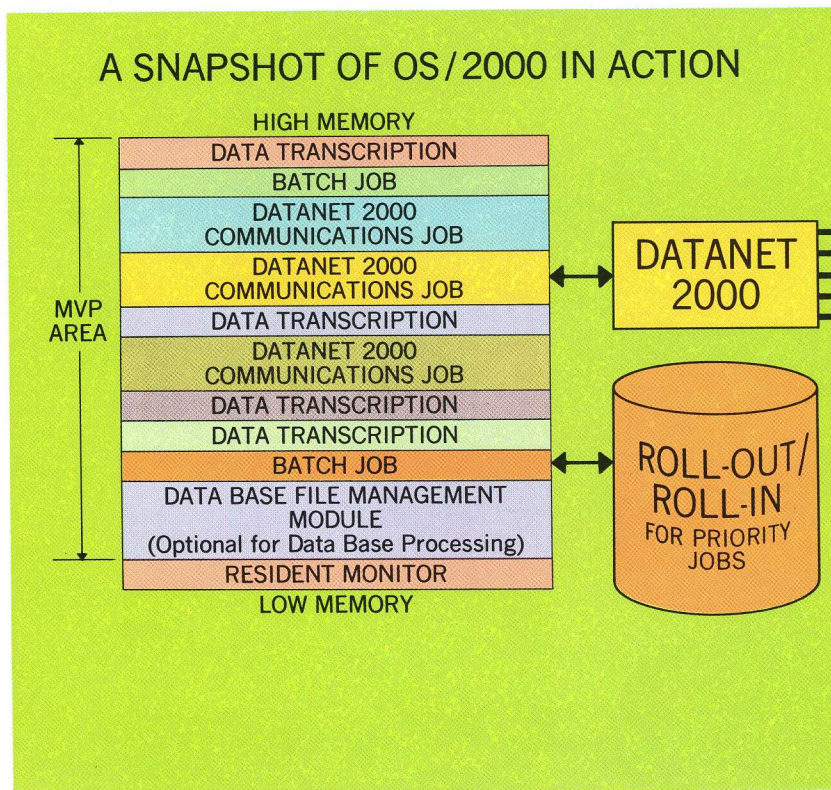
### Data base management.

Once all user data is consolidated in one data base file, the Data Base File Management module of OS/2000 acts as the interface between user programs and the base. The data base eliminates data, program, and file redundancies, since it uses only one set of data accessed by any job partition or remote communication device.

Multiple paths for data access are provided through stored data descriptions, multi-indexing, chaining, and linking capabilities in the module. The flexibility of access and use is given a high degree of privacy and protection with a system of security keys to prohibit unauthorized access. A chronological transaction file records all activities updating the data base. Thus, if the base were damaged logically, this file could be used to reconstitute the damaged portions.

**Easywriter.** Easywriter is a simplified data description language and processor that enables information requests to be written in English keywords and common arithmetic symbols. Non-programmers can apply Easywriter language to interrogate and to generate reports from standard disk and tape files. A self-teaching form is provided to guide the beginner through basic report formatting. Extended capabilities can then be mastered as needed. Easywriter requests can be initiated via normal system input or remote terminals.

**Full ANS COBOL compilation in 32K.** The OS/2000 COBOL Compiler requires only







Operator control with OS/2000 and the Type 220-8 CRT Console.

32K of memory to compile all elements of the COBOL language as defined by ANSI in USA Standard COBOL X3.23-1968, except Report Writer. These language elements include the table handling facility, rerun facility, and sort facility. In addition, to enhance OS/2000 communications capability, the COBOL compiler supports a subset of the CODASYL COBOL communications facility. User communications programs can issue COBOL SEND, RECEIVE, and IF MESSAGE statements.

A Call/Cancel facility allows a program to be separated into more manageable parts, so each part can be handled in the language most appropriate (e.g., COBOL, Fortran, EasyCoder Assembler); all parts are then regrouped at execution time. A debugging facility allows the user to set up a debugging algorithm providing access to pertinent information in a source-language orientation.

#### **Dynamic status reporting.**

This feature provides immediate or deferred display of vital system status information on jobs now running, jobs queued to run, print/punch output queued for transcription, system resources, and memory maps.

**Job accounting.** System resources for each job are accounted for and logged on disk as follows:

1. Account identity
2. Job and program names
3. Date
4. Start time, end time, and elapsed time  
CP time (on selected processors)

5. Amount of memory used
6. No. of various devices used
7. No. of input cards
8. No. of output cards
9. No. of lines printed
10. Job termination status

#### **Recovery/Restart.**

Extensive facilities for recovery and restart include restoring memory partitions according to checkpoint images and repositioning and restoring selected tape and disk files. The user has complete control over the frequency of recording recovery information.

#### **Honeywell compatibility.**

OS/2000 is fully compatible with Honeywell's proven and effective OS/200 operating system.

The popular Mod 1 compatibility features of OS/200 are also included in OS/2000. Most programs written for Honeywell's Mod 1 Operating System can run without change under OS/2000.

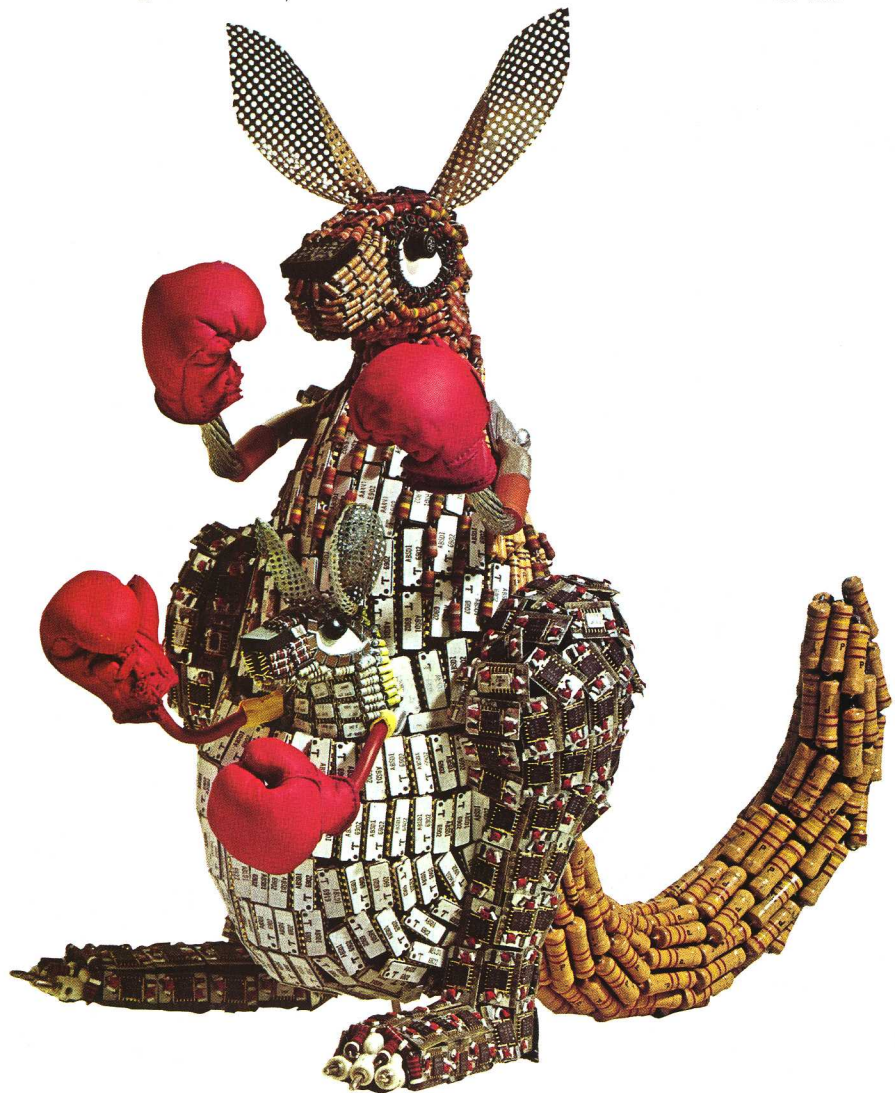
The benefits of OS/2000 design integration are also available with medium-scale Series 200 systems starting with Model 1015.

#### **Competitive compatibility.**

Higher-level language compatibility is offered in COBOL, Fortran, and RPG. And I/O compatibility is provided with 9-track tape peripherals. Whether you're currently using IBM, Burroughs, Univac/RCA, or NCR equipment, informative guidelines and a range of conversion aids are provided in the following areas:

- Language Translators (COBOL, Fortran, RPG)
- Data File Transcribers
- Utilities (card, print, and tape)

Simulators are available for IBM 1400's and 7000's, Burroughs 100/200/300/500 series, and Univac 1004. And we have a Conversion Technology Center to act as a focal point for the distribution of all aids in converting to Series 2000. Check 288 on reader service card.





# Responsive data communications: DATANET 2000

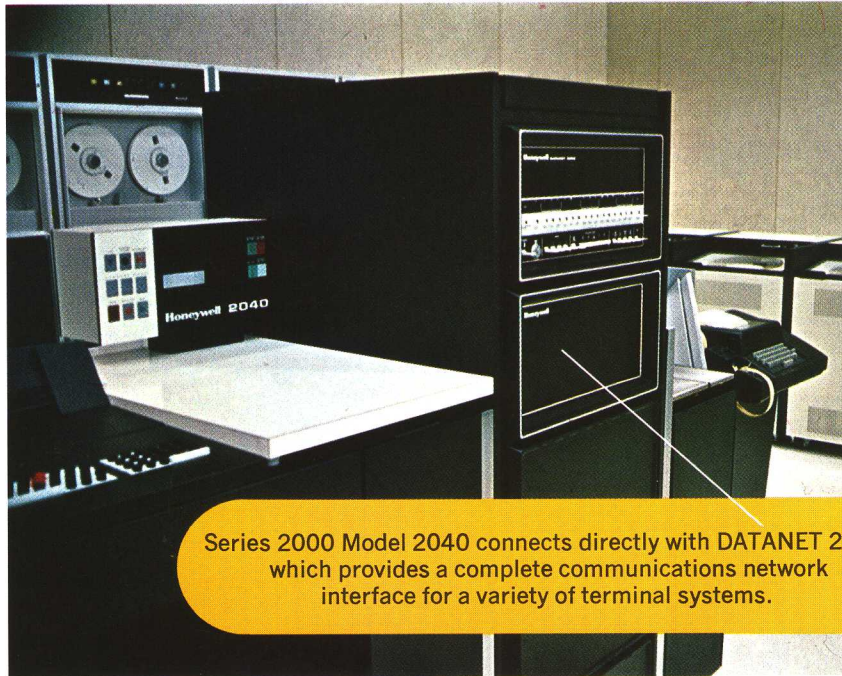
The sophistication and productivity of large-scale data communications comes to the medium-scale user through the distributive power of DATANET 2000.

## Communications benefits:

- Throughput – off-loading of the CP with front-end control of communications functions increases computing capacity and information throughput. Network operation through DATANET 2000 can accommodate more activity faster.
- Power – a fast, self-contained programmable miniprocessor expedites data handling while multiplexing up to 120 lines.
- Flexibility – front-end processing (FEP) software can support a vast range of data communications terminal and line requirements.
- Simplicity – the burden of communications control rests with DATANET software routines for such tasks as monitoring, conversion, and transmission. User SEND/RECEIVE statements in COBOL initiate transmission.
- Reliability – solid-state big-board technology with loop-back testing and longitudinal and cyclical redundancy checks ensure high up-time and data integrity.
- Efficiency – You can stabilize data processing costs because DATANET 2000 brings large-scale data communications to you without the cost of a large-scale mainframe.

## A communications package

Information processing using data communications can offer tremendous payoffs with the right combination of system elements. It is essential that the hardware and software elements of the system be integrated and controlled. DATANET 2000 offers this approach with an advanced miniprocessor for network and CP interface that comes complete with software to integrate and control the overall system.



Series 2000 Model 2040 connects directly with DATANET 2000, which provides a complete communications network interface for a variety of terminal systems.

The DATANET 2000 has a memory processing unit and I/O facility of its own. Its extremely fast cycle time of 385 nanoseconds per byte coupled with a set of 75 instructions provide effective data handling, control, computing, byte-handling, logical, shift, and I/O operations. A basic memory of 24K 8-bit characters is expandable in 8K increments up to 65K with an optional 512K characters of storage on a high-speed fixed-head disk.

High-speed CP interface is via an 83KC read/write channel directly connected to the Series 200 or Series 2000 mainframe. To interface the network, a basic communications controller provides multiplexing for up to eight lines operating at up to 10,800 bits per second. Line control is expandable in 2-line groups up to a maximum of 120 lines.

DATANET 2000 software provides the crucial controlling and interfacing that put the system in motion. Off-loading the information processor, the FEP's resident monitor performs the code translation, queuing, polling, and

error handling normally included as CP overhead. These activities are performed by FEP hardware and software so that only message content is forwarded to the CP. Data transmission commands to the FEP interrupt routines take the form of Series 2000 COBOL SEND and RECEIVE procedure calls.

Standard FEP interrupt routines handle incoming and outgoing data and maintain message queues in memory or on the optional fixed-head disk. Errors are handled by FEP software. Communications system initialization and loading, linkage to the CP, and operator intervention capabilities are also functions of the FEP software.

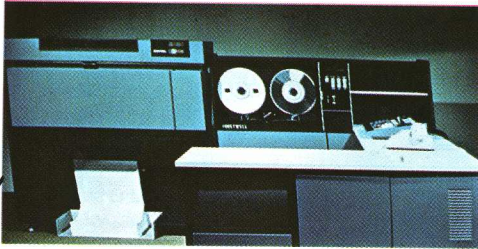
Honeywell has been installing data communications systems for years. Our DATANET 2000 concept offers an extremely simplified, low-cost way to increase your information processing capability dramatically. We've made it easy for you to have DATANET processing regardless of the terminals you are now using.



DATANET 2000 can interface most popular teleprinter and voice-grade terminals including

- Teletypewriter Models 33 and 35
- Honeywell 700 Series CRT's
- Honeywell Type 2440 Remote Transmission Terminals
- IBM 1050's
- IBM BSC-oriented equipment

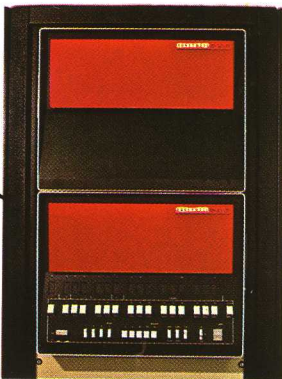
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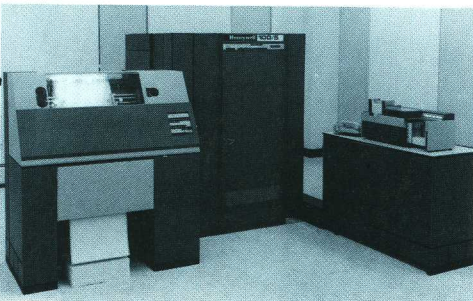
Honeywell's KeyNet key-to-tape data entry/communications terminals come with varied attachments such as a line printer, adding machine, and automatic program loading feature.

Communicates at 2000 bits per second.  
Rental Range - \$237-317. per month

Check 290 on reader service card.



Honeywell's family of minicomputers provides high-speed computation and I/O for a variety of communications and control applications.



Our Model 5 remote batch terminal offers 4 to 12K bytes of memory and a variety of card, print, tape and disk peripherals.

Communications speeds can vary from teleprinter-grade to 10,800 bits per second. Rental Range - \$838-2,700. per month.

Check 291 on reader service card.



Our Model 58 can serve as a satellite system for transaction or batch activities supported by 5 to 10K bytes of memory, card equipment line printers and disks (up to 11.5M bytes of storage).

Communicates at 2000/24000 bits per second.  
Rental Range - \$848-2,400. per month.

Check 292 on reader service card.

## Minicomputer systems for communications and control

Honeywell can expand your computer into an information network. All it takes is a self-contained, functional minicomputer system working with your mainframe. Honeywell minicomputer systems provide reliable, high-speed communications and control capability that you can use in a variety of ways to meet your specific applications:

**Production Line Control** - Minicomputer systems sense real-time operating control data directly from critical points on a production line to provide control information for the line as well as corollary data to affected departments. Result - improved productivity, real-time control, and better data distribution.

**Inventory Control** - Inventory transactions are recorded by remote CRT terminals and concentrated onto fewer high-speed lines for transmission to a master inventory data base for updating. Result - real-time monitoring and display of inventory status.

**Reservation Systems** - Multiple minicomputer systems collect data from CRT terminals operating at low speeds then concentrate and edit the data for high-speed transmission to the mainframe-resident reservation scheduler. Result - worldwide reservation verification instantaneously at reduced line costs.

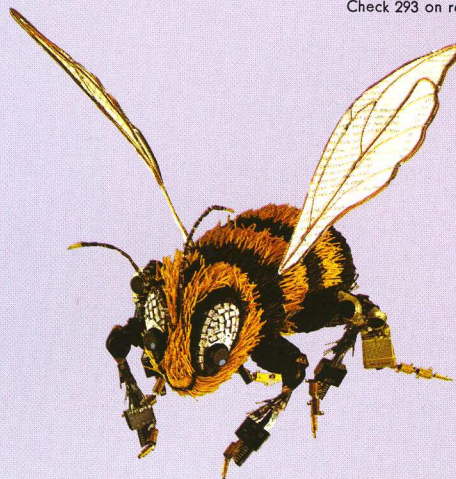
**Credit Verification** - Credit information is collected from terminals via minicomputer systems for forwarding to a mainframe for processing. Result - a significant reduction in communications line costs.

**Sales Order Processing** - Sales information is accumulated by a minicomputer system serving several sales offices. Sales information is sorted by product and orders are transmitted to a warehouse for processing. Hierarchies of minicomputer systems then consolidate data from sales regions for centralized management reporting. Result - faster order cycles, improved inventory control, and timely sales analysis.

**Program Development** - Minicomputer systems with card and disk peripherals are placed at strategic remote locations for program testing and debugging. Allows pretesting on site before remote batch entry to mainframe. Result - increased programmer and mainframe productivity.

Over the years, Honeywell has installed minicomputer systems for all types of companies, and we've developed the communications and control software to help in just about any application you have in mind. And our minicomputer systems can communicate in binary synchronous mode, so you'll find them right at home working with IBM 360/370 systems.

Check 293 on reader service card.





# Another measure of response from The Other Computer Company

## Industry-specific application packages

Response/2000 relates specifically to the user's business environment. Honeywell's industry-specific system designs and pre-coded packages for various industries have capitalized on this approach and enjoyed wide acceptance. Series 2000 adds even more meaning to our proven approach.

**Manufacturing.** Honeywell's Factor, a management information system for manufacturers, adds several new dimensions with Series 2000. Manufacturing applications available reach into important areas such as management sciences, numerical control, production scheduling, and inventory control. Many of these tools can now be tied together in a data communications and data base environment for increased efficiency and productivity.

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**Banking.** Series 2000 and OS/2000 support a full array of peripherals and terminals for banks including extensive MICR capabilities and an advanced 700 Series of high-performance CRT devices. Honeywell's long list of banking packages plus the data communications and Central Information File (CIF) capabilities available with Series 2000 can significantly increase your bank's information processing capacity.

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**Health Care.** Honeywell's total involvement in the health care industry resulted in the Hospital Computer Sharing System (HCSS). HCSS handles complete patient administration and accounting functions for one or more hospitals. Series 2000 and DATANET 2000 add a new dimension of data communications productivity to such a system.

Check 296 on reader service card.

**Distribution.** Honeywell application systems for distribution control center on MI•DIS, a system design for total control of all distribution functions. MI•DIS offers many subsystems such as

PROFIT II, for total inventory control, and Vehicle Scheduling, for fleet control. Response/2000 broadens the MI•DIS concept with data base and data communications techniques.

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## Real-time service network

Honeywell has built a solid reputation on the ability and responsiveness of its team of field engineering representatives. In over 200 field offices in the United States, over 3,000 field engineers apply themselves in installing and maintaining as many as 550 different product line items.

Each field engineer reflects a complete background of education, training and experience. Such individual capability is complemented by a sophisticated real-time service information network with:

**ALERT** – a system that notifies field engineering management of any problems not resolved within a predetermined time. So, additional resources can be coordinated to solve the problem quickly.

**RAMP** – a reliability assurance maintenance program for computing the preventive maintenance needs of each product and then developing a schedule that takes into consideration customer constraints. The result is efficient preventive maintenance and better systems availability.

**FIRM** – a centralized inventory ordering and control system to

ensure sufficient inventory levels at all field locations.

The success and capability of this service arm of Honeywell is demonstrated by the demand for our specialized force of engineers who maintain the equipment of many smaller manufacturers in the computer industry.

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## A Computer Company you can believe in

Honeywell has a history of success stories, not the least of which is our recent acquisition of General Electric's computer operations. This merger made Honeywell Information Systems a powerful international organization with nearly 12,000 computer systems installed worldwide, over 10,000 field support people, and almost 50,000 employees overall.

We offer products in all industry categories from printer ribbons to huge Series 6000 multidimensional processing networks. Our vast software and applications systems resources are proven user benefits that come to you without additional charge. Our business and industry services such as time-sharing, remote batch processing, contract programming, and computer time are offered worldwide.

Basic customer education programs are available at no extra charge through Honeywell field education centers throughout the country. Tuition-based education courses are offered to the general public through Honeywell's Institute of Information Sciences, with education centers in Boston, New York, Chicago, Detroit, Atlanta, and Los Angeles.

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Honeywell Information Systems has grown, because we have learned that our growth depends on our ability to be responsive to you. Response/2000 is committed to this concept.

For more information about any product or service, check the reader service card or just drop a note to Honeywell Information Systems (MS 061), 200 Smith St., Waltham, Mass. 02154.



Respond