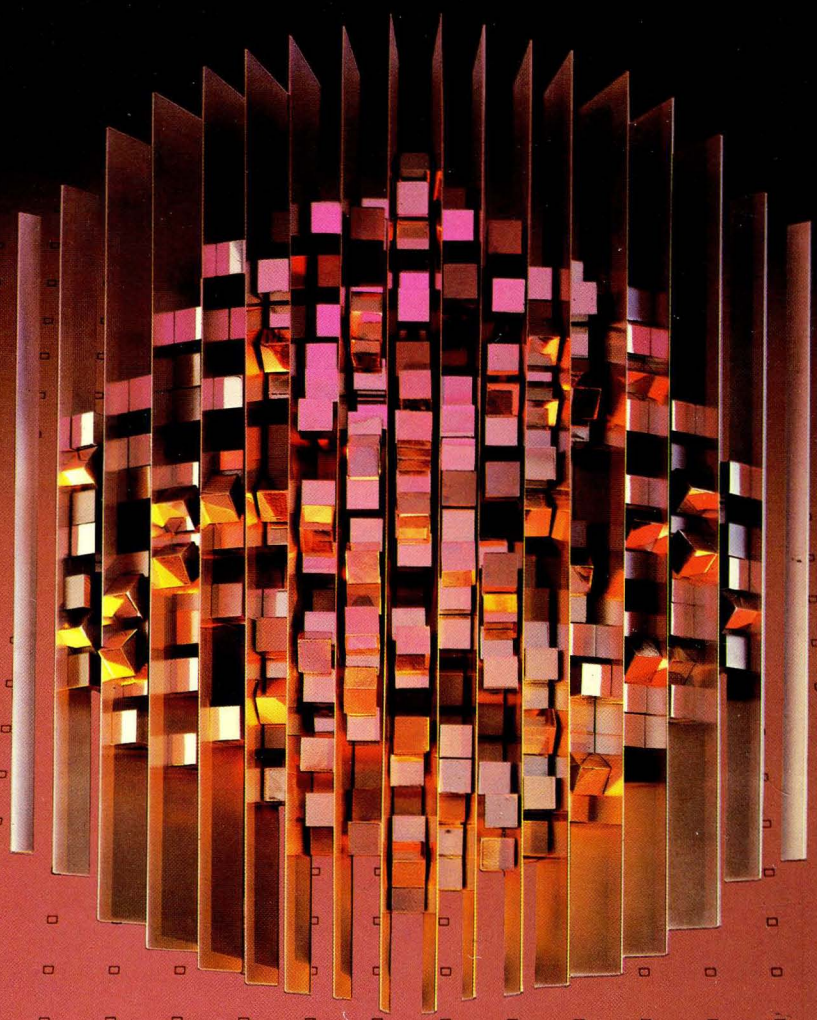
SPERRY

# System 1100/70

A Family for Growth...



SPERRY

The challenges of change are many: growth, complexity, competition, control.

The computer, responsive to changing business operations in the past, now provides managers with more opportunities to control and effect change.

Timely management and operational information and control are now more than aids to profitable decision-making —they are necessities.

Meeting those needs within a framework of continuing inflation, continuing price increases and difficult capital formation is a challenge that Sperry has accepted.

We offer the SPERRY System 1100/70. Low in cost and compatible with the advanced features found in the Series 1100 family, the 1100/70 models offer you fifteen major processing levels, with the opportunity for nearly 12-fold growth in performance.

The SPERRY System 1100/70 can fill your computing requirements today and can be easily adapted to organizational changes you make tomorrow.

Because they are easy to access in an on-line mode, the 1100/70 models are eminently suitable for use in the management decision-making process. Information for decision-making can be obtained either locally or from another location in distributed processing networks.

The 1100/70 models retain the inherent Series 1100 capabilities for communications management and control. Yet they are adaptable and can include SPERRY communications network processors. This permits the 1100/70 models to perform centralized management functions as well as disperse functions to more remote locations.

The speed, power and versatility of the 1100/70 models let you take advantage of opportunities to supply service that is faster, more accurate, more dependable and cost-effective.

And the advanced technology, modular design and greater functionality built into the 1100/70 models assure you that your investment in this key management resource is well-protected.

If you are interested in computer systems that combine ease-of-use and advanced data processing capabilities at a low cost, consider the SPERRY System 1100/70 today.

They are part of an evolutionary process begun in the 1960's that will continue through the 1980's and beyond.

## *Availability—for the 80's*

Above all, the 1100/70 models are part of the Series 1100 family—one of the most powerful and versatile families of computer systems available today.

The 1100/70 models are an entry into the Series 1100 family, at a low threshold of complexity and cost. The latest advances in large-scale integration (LSI)—and a design architecture with many models that feature multiple microprocessors—makes the 1100/70 models powerful, yet compact and low in cost.

The central processor and input/output unit are functionally independent, but are housed in a single cabinet. You don't have to give up precious floor space to house the 1100/70 models. And cooling and power requirements are low.

Main storage is integrated with the central processing cabinet. Each processor can store up to 4 million (16M bytes) words of memory, while the multiprocessor can store up to 8 million (32M bytes) words of memory.

Best of all, the same features that make the 1100/70 models small in size and low in cost also make them large in functionality: the 1100/70's can fill your requirements for on-line and distributed processing throughout the 80's.

The key to the functionality of the 1100/70 models is the comprehensive 1100 Operating System—compatible throughout the Series 1100 family—and the extensive library of Series 1100 software. You get support for on-line data base, data communications, distributed data processing, interactive program development, research and analysis, and traditional batch and remote-batch processing.

The 1100/70 central equipment complex incorporates a DCP. This may be a DCP/10, a DCP/20 or a DCP/40, depending upon the number of terminals utilized and throughput required. The DCP acts as a front end for all communication interfaces, including transaction processing, timesharing, and remote job entry, aiding the host processor performance. In addition, the DCP offers a full range of network

## *Features for Functionality and Flexibility*

processing, including downline nodal processors and concentrators; it interfaces to Sperry-supported public data networks, homogeneous (Series 1100) and heterogeneous distributed data processing, and competitive connections. The SPERRY DCA/DCP will continue to evolve in the above areas as well as interface with the SPERRYLINK Office Systems.

The DCP interface assures the incorporation of homogeneous distributed data processing capabilities among Series 1100 hosts and SPERRY intelligent terminals.

The 1100/70 models also incorporate a medium performance cache/disk controller. This controller allows the attachment of up to sixteen 8450 disks and/or 8470 disks on a single or dual channel (with the addition of a second control unit). It also allows the attachment of up to four 8480 disks (equivalent to 16 8470's). The 8480's can be intermixed with the 8470's or 8450's.

The disk controller can also offer three versions of cache/disk subsystem capabilities. These may be ordered initially or field-upgraded. They are:

**Semiconductor Auxiliary Storage:** This is offered as system storage for fast access and transfer of data or programs. Four to sixty-four million bytes of data are available on a single or dual channel.

**Medium Speed Cache/Disk:** This is combined system storage and disk migration (caching). Disk migration may be on a dual or single channel providing up to 16 million bytes of storage. An additional 48 million bytes may be used for system storage, for a total of 64 million bytes of semiconductor media.

**High Speed Cache/Disk:** This is offered as combined system storage and disk migration on dual channel. The throughput is considerably faster than medium speed, and up to 64 million bytes may be used for migration or as semiconductor auxiliary storage. The selection of the operating mode may be defined at system generation time.

All three versions of storage offer considerably more throughput than conventional subsystems. The throughput will depend upon the application and job mix resident within the system, but all users and operating environments will have the potential for much greater I/O service with the addition of semiconductor storage complemented by intelligent firmware-driven control units.

In addition, cache/disks increase the capacity of the 8480 and 8470 by as much as 60%

Flexibility is further enhanced by the modularity and performance range of the 1100/70 systems. From a basic system, they can be expanded in modular increments to a system almost seven times as powerful. This allows you to start small and increase the size of the system to match your growth and needs. There is no reason to purchase more than you need.

The SPERRY System 1100/70 Series offers a large variety of configurations with 15 distinct processing levels. For single processors, there are seven models, the 1100/71 B1, C1, C2, E1, E2, H1, H2; For dual processing, there are four models, the 1100/70 E1, E2, H1 and H2; For multiprocessing, there are eight models, the 1100/72 E1, E2, H1 and H2, 1100/73 H1 and H2, and the 1100/74 H1 and H2.

Enhanced double precision floating point instructions are standard with each model. All 1100/70 models use the same 1100 Operating System, enabling you to increase your processing capability from the entry level B1 model in steps to the multiprocessing models with no conversion of programs or replacement of processors.

The basic 1100/71 B1 model is a very powerful, cost-effective processing complex offering industry-leading, large scale functionality. This is an ideal system for computer users moving up from smaller scale systems; entering into data base, data communications or distributed processing environments; or adding more processing power to an existing data processing department.

The B1-C1 performance enhancement feature upgrades the 1100/71 B1 to a C1 model.

The 1100/71 C2 unit processing model is the next step up in performance and contains an extension to the instruction set contained in the C1 model. The extended instruction set provides an optimized set of business-oriented instructions that accelerates processing in the on-line data base, data communications and batch environments.

The 1100/71 E1 model features the addition of a high speed buffer memory and multiprocessor capability. The high speed buffer provides a transparent storage interface that significantly increases the effective execution speed.

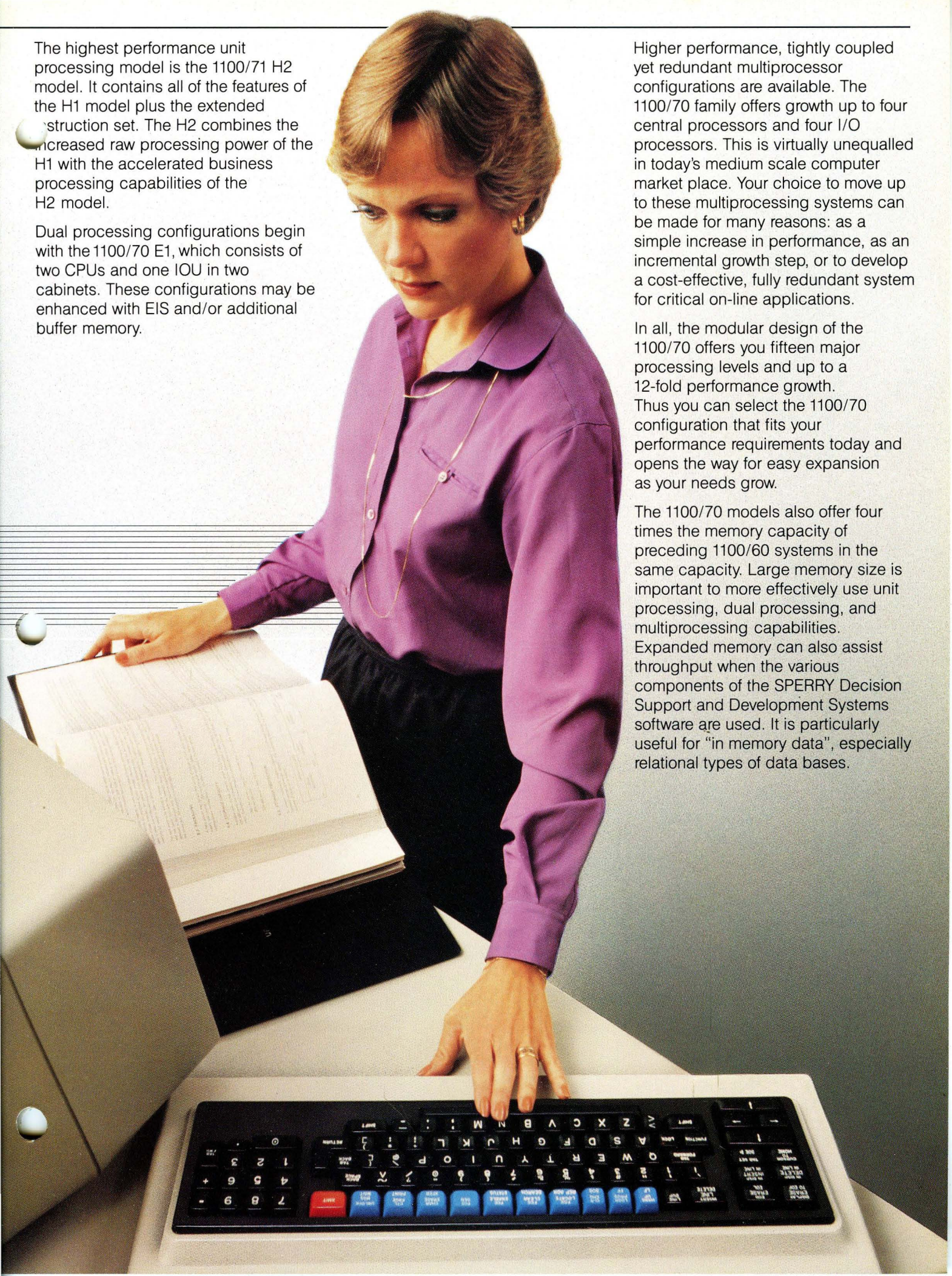
The 1100/71 E2 combines the performance advantages of the E1 model with the extended instruction set.

The 1100/71 H1 goes a step beyond the 1100/71 E1, providing additional performance by increasing high speed buffer memory size.

## *Fifteen Processing Levels— Nearly Seven Times More Performance*

The highest performance unit processing model is the 1100/71 H2 model. It contains all of the features of the H1 model plus the extended instruction set. The H2 combines the increased raw processing power of the H1 with the accelerated business processing capabilities of the H2 model.

Dual processing configurations begin with the 1100/70 E1, which consists of two CPUs and one IOU in two cabinets. These configurations may be enhanced with EIS and/or additional buffer memory.



Higher performance, tightly coupled yet redundant multiprocessor configurations are available. The 1100/70 family offers growth up to four central processors and four I/O processors. This is virtually unequalled in today's medium scale computer market place. Your choice to move up to these multiprocessing systems can be made for many reasons: as a simple increase in performance, as an incremental growth step, or to develop a cost-effective, fully redundant system for critical on-line applications.

In all, the modular design of the 1100/70 offers you fifteen major processing levels and up to a 12-fold performance growth. Thus you can select the 1100/70 configuration that fits your performance requirements today and opens the way for easy expansion as your needs grow.

The 1100/70 models also offer four times the memory capacity of preceding 1100/60 systems in the same capacity. Large memory size is important to more effectively use unit processing, dual processing, and multiprocessing capabilities. Expanded memory can also assist throughput when the various components of the SPERRY Decision Support and Development Systems software are used. It is particularly useful for "in memory data", especially relational types of data bases.

Availability—it's the key to usefulness and to informed decision-making. With on-line, natural-language information access provided by the 1100/70 models, your managers get the data resource they need, when they need it.

This gives you more than increased productivity from your on-line users; it also increases the accuracy with which your managers make decisions in your day-to-day operations. And the 1100/70 models are designed to assure you that vital information will have maximum availability.

Productivity from your computer system must begin with a system that is available for your use. The 1100/70 knows when it has an internal problem, diagnoses the problem, and then logs the result and alerts the system operator.

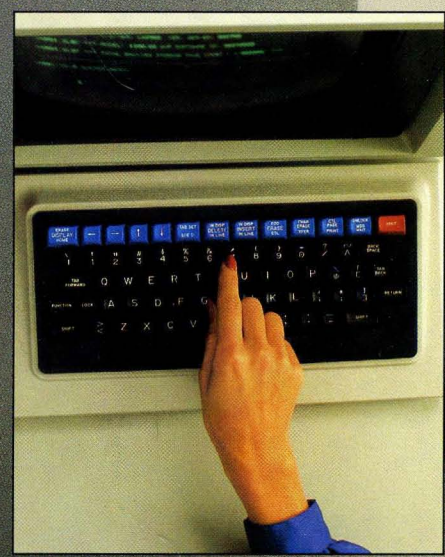
Generally the occurrence of a problem won't affect availability because the 1100/70 will circumvent the problem. One method the 1100/70 uses to achieve continuous availability is by including parallel instruction circuitry and comparing results. If an instruction fails, the 1100/70 will reset itself and retry the instruction, all automatically. It will attempt to correct problems—or at least isolate the problem component so that the system continues to operate.

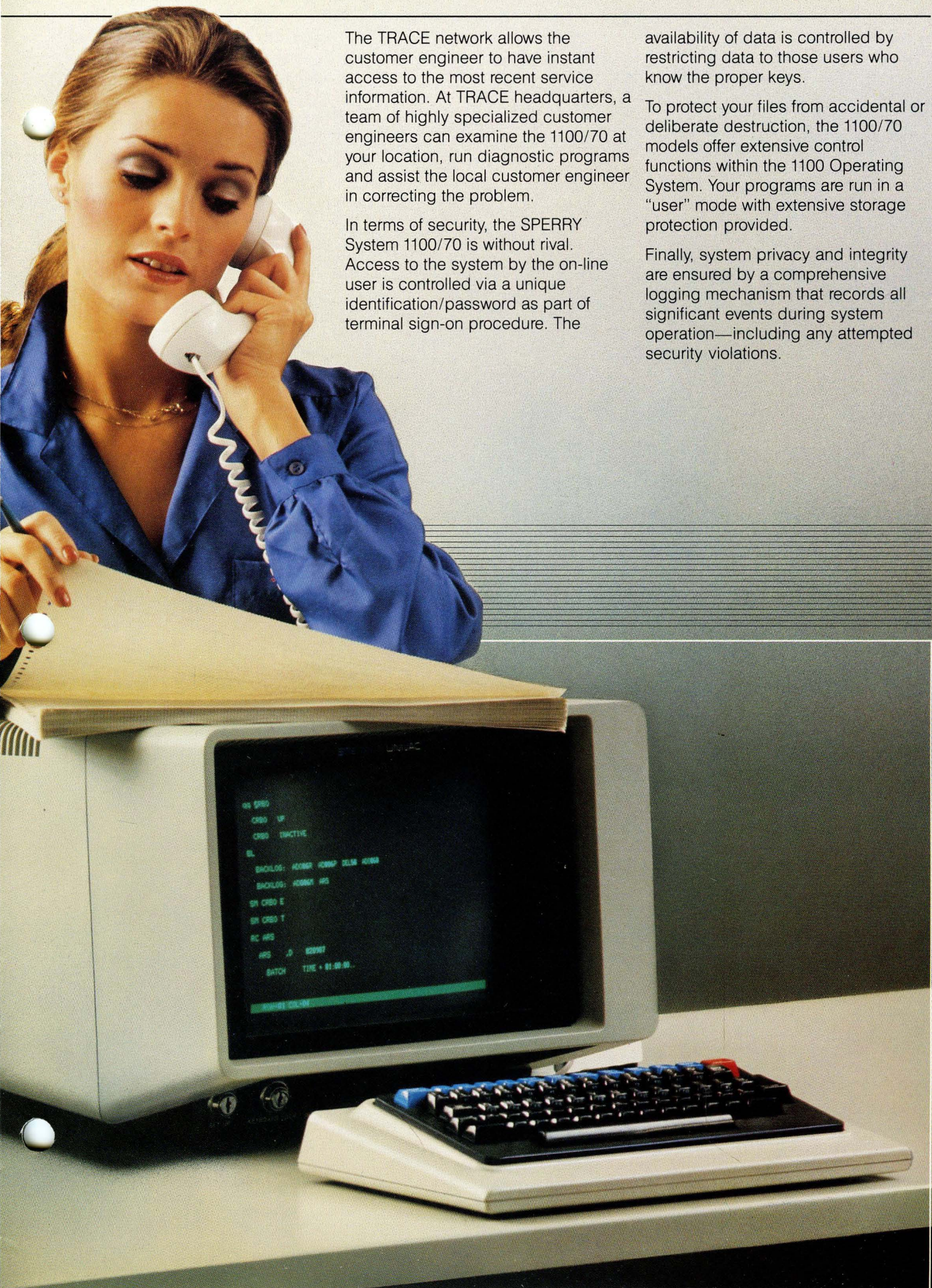
When the system corrects a problem, it will log that information for later use by the Sperry customer engineer. The information contained in the log will provide explicit information to assist the customer engineer in taking corrective action.

Instructions that exercise the 1100/70 to uncover potential problems are routinely and automatically initiated by the system.

Assistance in diagnosing problem areas can be accomplished by Sperry customer engineers via a teleprocessing connection to the SPERRY Total Remote Assistance Center (TRACE), and the Systems Support Processor in the 1100/70. This connection can be made even when the 1100/70 is not operational.

## *Availability and Security— Today and Tomorrow*



The TRACE network allows the customer engineer to have instant access to the most recent service information. At TRACE headquarters, a team of highly specialized customer engineers can examine the 1100/70 at your location, run diagnostic programs and assist the local customer engineer in correcting the problem.

In terms of security, the SPERRY System 1100/70 is without rival. Access to the system by the on-line user is controlled via a unique identification/password as part of terminal sign-on procedure. The availability of data is controlled by restricting data to those users who know the proper keys.

To protect your files from accidental or deliberate destruction, the 1100/70 models offer extensive control functions within the 1100 Operating System. Your programs are run in a "user" mode with extensive storage protection provided.

Finally, system privacy and integrity are ensured by a comprehensive logging mechanism that records all significant events during system operation—including any attempted security violations.

Increased productivity...
Greater information availability...
Better control of operating costs...
Greater profitability...
Improved customer service...
Increased return on investment...

These are your goals for the 1980's—goals that you can reach with the help of on-line data access—goals that can be achieved through sound investment.

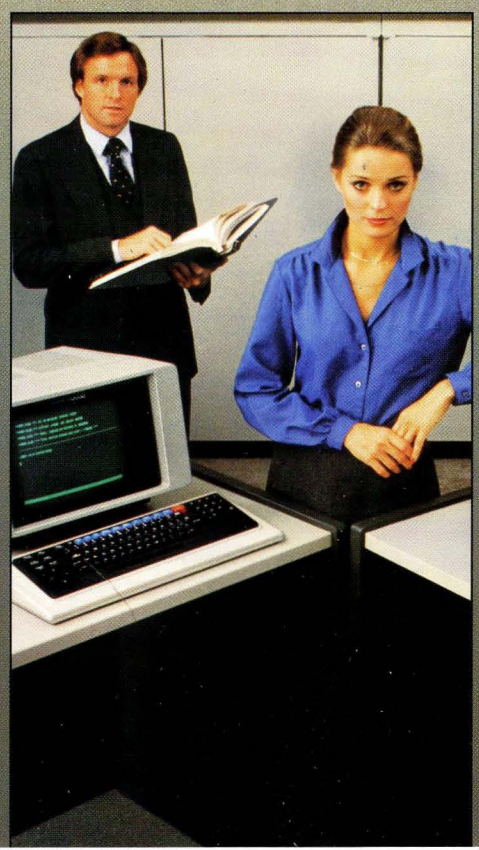
The SPERRY System 1100/70, through its use of the latest technology, its 12-fold performance growth potential, its advanced data processing functionality, and its features for availability, reliability and maintainability, offers you an attractive return on your goal-directed investment.

As your business has grown and evolved into what it is today, your data processing needs have also grown and diversified. You know that evolution will continue through the 1980's, and the SPERRY System 1100/70 has the modularity and growth to respond dynamically to your needs.

We have designed the 1100/70 models to keep up with your needs—and to anticipate them. The 1100/70 models are adaptable to your operations. They make data available on-line, as you need it. They help you keep up with the present, and the future.

Whether your requirement is for on-line access to your data resource; for interactive program development, research or analysis; for traditional batch or remote-batch processing; or for any combination of these things; the SPERRY System 1100/70 offers you a cost-effective solution that can be customized to your exact specifications.

## *An Investment In On-Line Computing for the 80's*




*We understand how important it is to listen.*

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