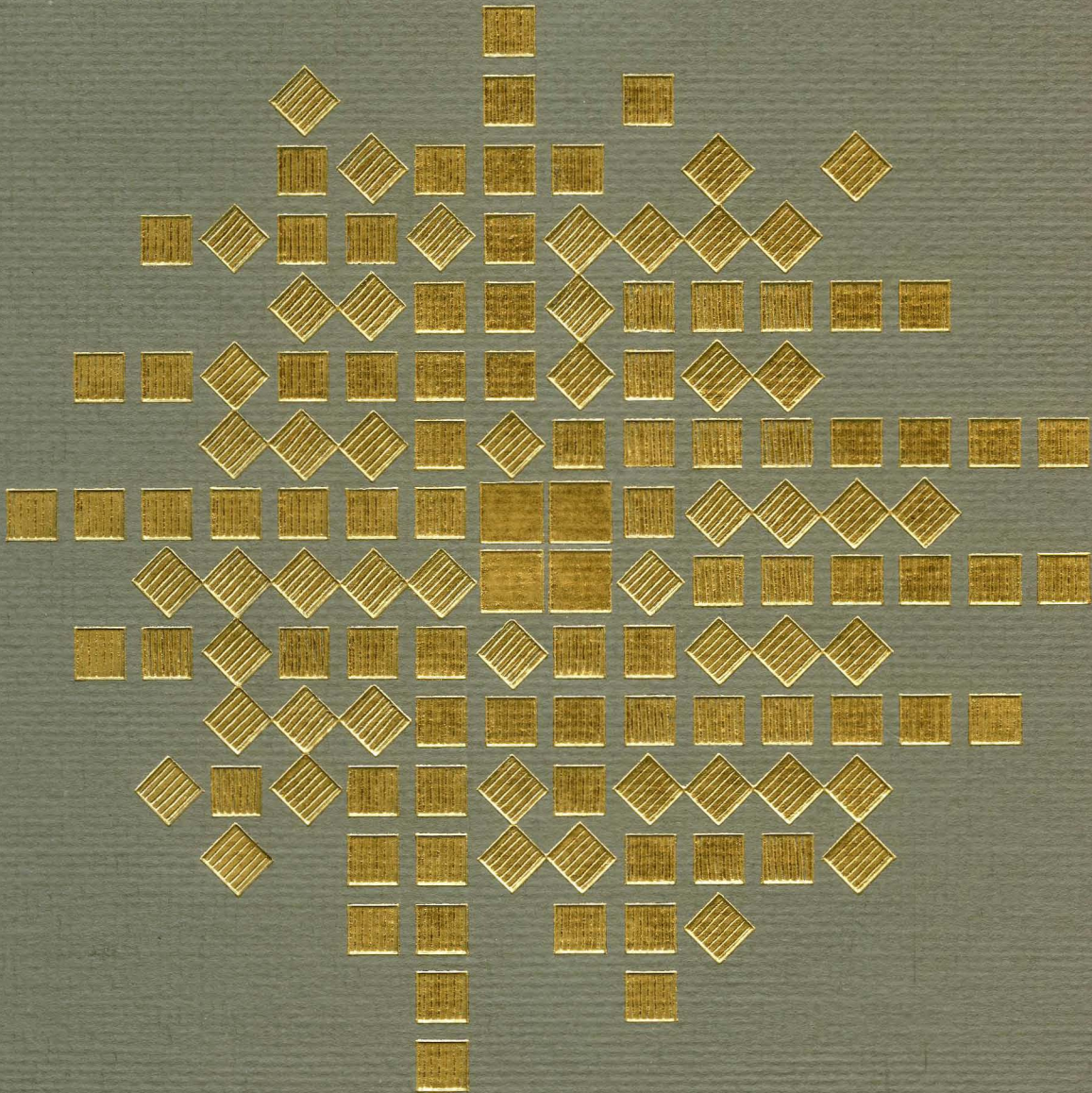


SPERRY
1100/70 Series
Attached Virtual
Processor



Investment Protection with a Future . . .

You have a great deal invested in your system: time, money, experience and applications.

That's an investment you want to protect, because the alternative is both costly and disruptive. Even bargain-price hardware is no bargain if you have to suffer through the confusion and waste that is all too often involved in a complete conversion.

Now you can protect your investment and avoid the waste of conversion. The answer is the new SPERRY 1100/70 Series Attached Virtual Processor (AVP).

The 1100/70 Series AVP offers you a number of significant advantages:

- It meets your needs for increased functionality at the lowest possible cost.
- Its new, easy-to-use software can greatly improve your data-access capabilities and productivity.
- It protects the investment you have in your current hardware. You can

continue to use all your existing peripherals on the AVP, or you can elect to utilize the latest technology peripherals available with the 1100/70 Series.

- It protects the investment you have in your current applications. As you know, all application programs have a finite life cycle after which they must be extensively updated, or re-written. The 1100/70 Series AVP will allow your application programs to run their normal life cycle and when the time comes to re-systematize, it can be done under 1100 OS instead of VS/9.
- Compatibility with your present virtual system means no disruption to your current data processing. Therefore you will not have to "freeze" all current application development because you are faced with an immediate conversion effort. Additionally, the resources that would normally be required to address the conversion are now available for other projects.

The 1100/70 Series AVP has been designed specifically to execute the

VS/9 Operating System, running under the control of the time-tested and versatile 1100 Operating System. The system consists of a newly designed, Series 90 compatible processing unit operating in a multi-processor environment with any 1100/70 Series processor. Application programs can be executed on the AVP without the need for modification.

With the AVP, you have the opportunity to enjoy the benefits of the latest advances in architectural and circuit technology at the level of power and performance that will meet your present and projected needs. It gives you processing resources and functionality far beyond those available in VS/9—resources and functionality that you can take advantage of according to your own timetable.

All in all, the AVP is powerful proof that Sperry respects your present system investment, and is fully committed to providing you with new-technology hardware and software—products you will need to protect your information-processing investment in the future.



Full Service Capability...

For increased functionality and power, the AVP system blends both Series 90 and Series 1100 hardware and software. As mentioned, VS/9 and 1100 OS operate separately, yet simultaneously, except for input/output functions. APCS (Attached Processor Control Software), the Series 1100 control program, provides the interface for input/output functions.

The AVP can be configured with any processor model offered in the 1100/70 Series, giving you a choice of processing levels to meet your specific requirements. For added growth, each processor can be field-upgraded to the next model and up to three 1100/70 processors may be configured with the AVP.

The 1100/70 systems support a wide variety of subsystems that will increase the versatility and range of your computer system including advanced disk storage devices, magnetic tape storage, communications equipment, paper peripherals—a full complement of input-output equipment for every purpose.

Not only does the AVP provide improved data processing performance, it also offers new or improved services not possible on your current system.

For the data processing professional, a wide range of programming languages and application development tools

allow you to get much needed applications into production sooner. Some of the programming and development facilities available on the AVP include:

- IPF 1100—Interactive Processing Facility 1100 allows you to interface with the system at any level of sophistication. Easy to use commands permit you to fully utilize the system. With these simple commands, you can build, edit, and execute a program concurrently with tasks previously started.
- PADS 1100—Programmers Advanced Debugging System 1100 is a language-dependent debugging tool. PADS is designed for interactive debugging of programs written in COBOL, FORTRAN, or PL/1.
- EDIT 1100—A display editor for the IPF 1100 system, EDIT 1100 is also available to the interactive user. It is designed for use with all editing functions, whether for programs, data, or documentation text. EDIT 1100 offers a full complement of powerful editing commands as well as full screen editing capability, significantly reducing data transmission time.
- DPS 1100—Display Processing System 1100 is a comprehensive system that constructs and manages display-oriented transactions in an on-line environment. DPS 1100 allows screen formats to be designed, developed and tested before or

during the development of programs using the screen. A programmer (or user) may “paint” the screen the way he wishes it to look by defining various fields as alphabetic, numeric, etc.

- COBOL—ANS 1974
- BCOB—A syntax analyzer used to enter, scan and check the validity of COBOL statements prior to submission to the COBOL compiler.
- ASCII FORTRAN
- BFIN—A syntax analyzer used to enter, scan and check the validity of FORTRAN statements prior to submission to the FORTRAN compiler.
- PROGRAMMING LANGUAGE 1 (PL/1)
- BASIC
- APL 1100
- RPG II
- Pascal



Business Applications . . .

For the business professional, the 1100/70 AVP offers numerous facilities to help do a job more quickly and efficiently. Executives, managers, researchers, planners and statisticians can use their own effective interface to request information, solve problems, or update current information. These facilities encourage more accurate, cost effective business decisions by providing executives, researchers, planners and statisticians with the means to request information, solve problems or update information.

Some of the facilities available to the business professional include:

- UNIS 1100—The SPERRY Industrial System 1100 solves management information and control problems in the manufacturing industry. Powerful interactive subroutines allow for the construction of a production control system according to specific needs.
- FINANCIAL ACCOUNTING—SPERRY Financial Accounting System 1100 is a generalized, totally integrated system, complemented by modular applications that can be used independently or in conjunction with other modules. Applications include Accounts Receivable, Accounts Payable, General Ledger/Budgeting and Payroll/Personnel Systems.
- UNIDAS 1100—SPERRY Document Retrieval System 1100 is a

comprehensive, modular, computer-oriented document and information retrieval system. UNIDAS is useful whenever fast on-line access to large numbers of articles, reports, contracts, laws, general directives, or abstracts of public actions are required.

- UNADS—The SPERRY Automated Documentation System is an easy-to-use document composition system used by industry, government and the military. Output from UNADS is also used to drive various typesetting and Computer Output Microfilm equipment.
- SUFICS 1100—The SPERRY Financial Integrated Control System 1100 is an English-based programming language designed for financial planning applications, and is used to set up a financial model of all or part of an organization's operations. Since SUFICS is interactive, it allows management to ask "what if" questions and get a quick response to questions that, in the past, remained unanswered. Application areas for SUFICS 1100 are numerous, including most areas of Financial Planning, Control and Analysis; Product Planning, Market Planning and Manpower Planning; and Econometric Modeling.
- MAPPER 1100—This general purpose report processing system simplifies the task of handling data. And, with its color graphics feature,

data can be converted to a number of different charts. It makes data inquiry, report writing and data manipulation facilities available concurrently to many different users, no matter what the application.

- IMS 1100—The Information Management System 1100 is an interactive transaction processing system with integrated file management facilities. It allows creation of action programs for an on-line transaction processing environment with minimal programming effort. Files referenced by action programs can be conventional, already existing files or DMS 1100 data base files. The UNIQUE facility provides an Inquiry/Update capability for general file processing. With UNIQUE, users have access to files without the need for programming their request. The UNIQUE language is a powerful set of English commands designed for ease-of-use, offering the terminal user the ability to display and update his files and produce exception or ad hoc reports at a moment's notice.
- DATA DICTIONARY—The Data Dictionary System (DDS) provides a single source of information for all groups associated with the computer, from the operator to top management. DDS can issue reports in the terminology of the receiving group, thus providing personalized information.



Scientific Applications . . .

For the scientific user, a number of program products are available to help perform a job more quickly and accurately. Some of the products available include:

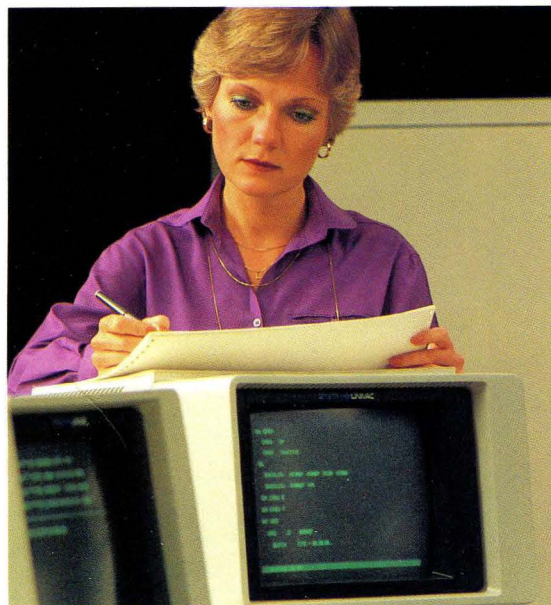
- APT 1100—Automatic Programmed Tools 1100 is an advanced, problem-oriented language for geometric and numerical control applications. Included are milling machines, drilling and boring machines, lathes, machining centers, automatic wiring machines, welding and flame-cutting machines. The APT system includes a programming language that provides a vocabulary for describing the geometry, motions and machine functions necessary to produce a "part" using numerical control machines.
- APT 1100, LATHE MODULE—Lathe Module is an optional extension for the APT 1100 system used when there is a significant program requirement for Numerical Controlled Lathes.
- ASET 1100—The Author System for Education and Training enables a curriculum development specialist in education and a training specialist in industry to develop "courseware" in either drill and practice or in tutorial Computer Aided Instruction (CA) strategies.
The ASET system operates under the SPERRY 1100 Operating System

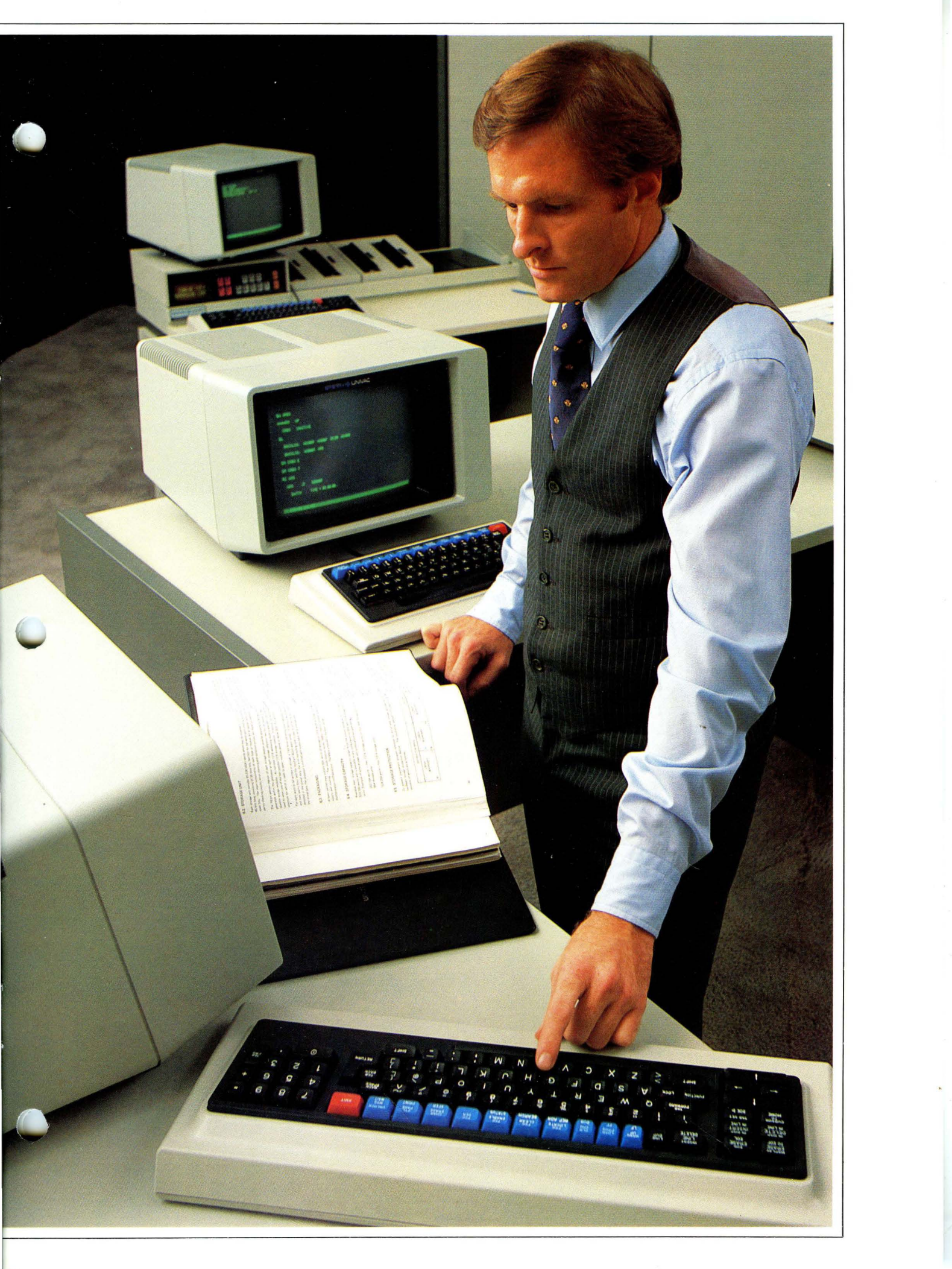
on a minimum Series 1100 hardware configuration.

- FMPS—Functional Mathematical Programming System is a collection of computer programs containing the most advanced mathematical optimization techniques. With it, you can select a financial portfolio to maximize profits; produce a cheaper cattle feed; or determine a cost-cutting shipping schedule. FMPS can contribute to profitability in many specific areas of activity.
- FMPS-GAMMA—A model generator and report writer of FMPS, GAMMA is an easy-to-use vehicle that supplies input to the FMPS system in the form of tables and lists. From these tables and lists, GAMMA generates, and presents to FMPS a model that is used to produce an optimized solution to the problem.
- IGDS—Interactive GAMMA Data-Manipulation System works with GAMMA, the model generator/report writer of the FMPS system. IGDS allows for interactive creation and manipulation of the data (GAMMA tables and lists) that eventually form the problem model. It is very effective when trying different combinations of a model requiring many iterations.
- GIFTS 1100—Graphics-oriented Interactive Finite-element Timesharing System is a series of programs used primarily by mechanical engineers to graphically

design structures. With GIFTS 1100, you design a visual image that you can alter and test with ease. The model can be viewed from any angle and any portion of the model can be enlarged for closer scrutiny.

- ICES—The Integrated Civil Engineering System is modularly designed, made up of various subsystems that deal with design and problem solving in the area of structures, roadways and geometrics. ICES provides a problem-oriented language used by engineers to state a problem to the system in familiar and convenient terms. It is extremely flexible and can be used in other branches of engineering science and management.
- M/S PACK ASCII—A Comprehensive Mathematical and Statistical Library compiled by ASCII FORTRAN. It provides many of the most frequently used tools for numerical and statistical analysis.
- OPTIMA 1100—OPTIMA 1100 is a flexible project management system that will process data concerning networks of activities. It can help analyze time, cost, resource utilization and allocation and provides detailed and extensive reports. The overall design is an integrated system comprising three functions: time analysis, resource allocation and cost control. These three can be used in any combination or individually.





Communications Orientation . . .

The AVP maintains your total communications environment. Remote access to the AVP is provided with either the Multichannel Communications Controller (MCC) or the Distributed Communications Processor (DCP/40). If you wish to retain your current communications environment, merely attach your MCC and the complete terminal environment directly to the AVP and continue processing as before.

If you wish to expand your communications facilities, consider the DCP/40. It provides remote users with all the VS/9 facilities currently available and with the entire range of services and facilities available with 1100 OS.

Thus, operating from your remote terminal, you can utilize existing VS/9 procedures as before or begin to use the new and expanded features provided by 1100 OS. Now applications, delayed due to restrictive hardware capacity or software capabilities of the VS/9 system, can be implemented with the combined VS/9-1100 facilities made available by the AVP without needing redundant communications terminals or controllers.

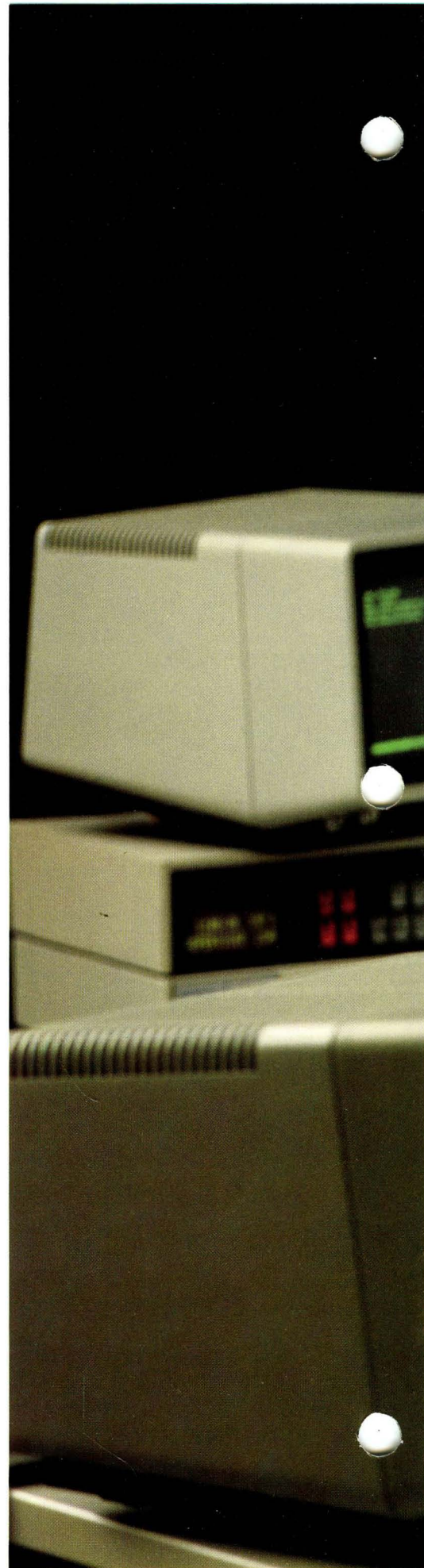
Interactive Application Development . . .

As you know, the interactive program development facilities available with VS/9 are powerful tools which aid rapid development of application programs. They increase productivity, reduce application development costs and improve customer service.

The Interactive Processing Facility (IPF), available under 1100 OS, extends and enhances the already versatile interactive capabilities of VS/9. IPF, which incorporates advances in software and hardware, provides the VS/9 user with a system view that is familiar, yet new and stimulating.

IPF provides a wide choice of program products that are easily accessed through a command and response language. Following are some advantages of IPF 1100:

- Access to end-user facilities such as:
 - Query Language Processor (QLP)
 - SPERRY Financial Integrated Control System (SUFICS)
 - Universal Document Access System (UDAS)
- A full screen editor with procedural capability, callable from IPF or from programs.
- Access to Distributed Data Processing functions using the same command and control language.
- Interface into the 1100 OS, providing use of its compilers, syntax scanners and the complete Programmer Advanced Debugging System (PADS), a language independent debugging tool.





The Ideal Follow-On for the VS/9 User . . .

To help you protect your VS/9 system investment for now and for the future, Sperry has introduced its 1100/70 Series Attached Virtual Processor.

It is totally compatible with applications developed for VS/9, and it offers features and overall growth potential not available in systems using VS/9.

It lets the VS/9 user move to a higher plane of information processing without the disruption—and at far less than the cost—of converting to a different system.

With the 1100/70 Series Attached Virtual Processor you can add new functional facilities to your present system, improve its availability and enhance the productivity of your entire operation.

What's more, you can assure yourself of continued growth potential within the 1100 Series of processors. Expanding from the 1100/70 Series up through the 1100/90 Series can provide a performance growth of more than 54 times that of the entry level system.

Compatibility, functionality, availability and growth potential—they combine in the 1100/70 Series Attached Virtual Processor to make it the ideal, and logical, follow-on for the present user of VS/9.





We understand how important it is to listen.