ATTACHED RESOURCE COMPUTER™ SYSTEM ANNOUNCED

A totally integrated computing facility consisting of any number of small, functionally dispersed computers linked together by a high-speed electronic pathway such that each user has access to all system resources. That's the Attached Resource Computer system announced December 1 by Datapoint.

A key element of the ARC system is modular architecture, which lets the system grow in a manner exactly matching the growth of the business it serves. If more processing power is needed, additional processors -- in several different sizes and capabilities -- may be easily attached to the system.

And if additional data storage is required, any number of disk drives can be attached to the common system database.

These reconfigurations and expansions can be done while the system remains in operation, and without changes to existing applications programs or operating systems.

In an ARC system, many different types of applications -- data entry, batch or transaction processing, database inquiry, communications -- can be done concurrently yet with maximum efficiency, and without hampering any user of the system by the activities of any other.

An ARC system provides small and large businesses alike with the processing power and common database features of a large computer combined with the upgradability and task-oriented flexibility of functionally dispersed small computers.

Three basic components of an ARC system are: applications processors, which perform batch or transaction processing tasks in either single or multiuser modes; file processors, which are dedicated to managing data on data storage units to locate and deliver remotely stored data on demand to applications processors; an interprocessor bus consisting of hardware and firmware physically connected by inexpensive coaxial cable to provide an extremely high-speed electronic pathway for data transfer.

ARC systems are not dependent on the relatively slow telephone communications or physical transfer
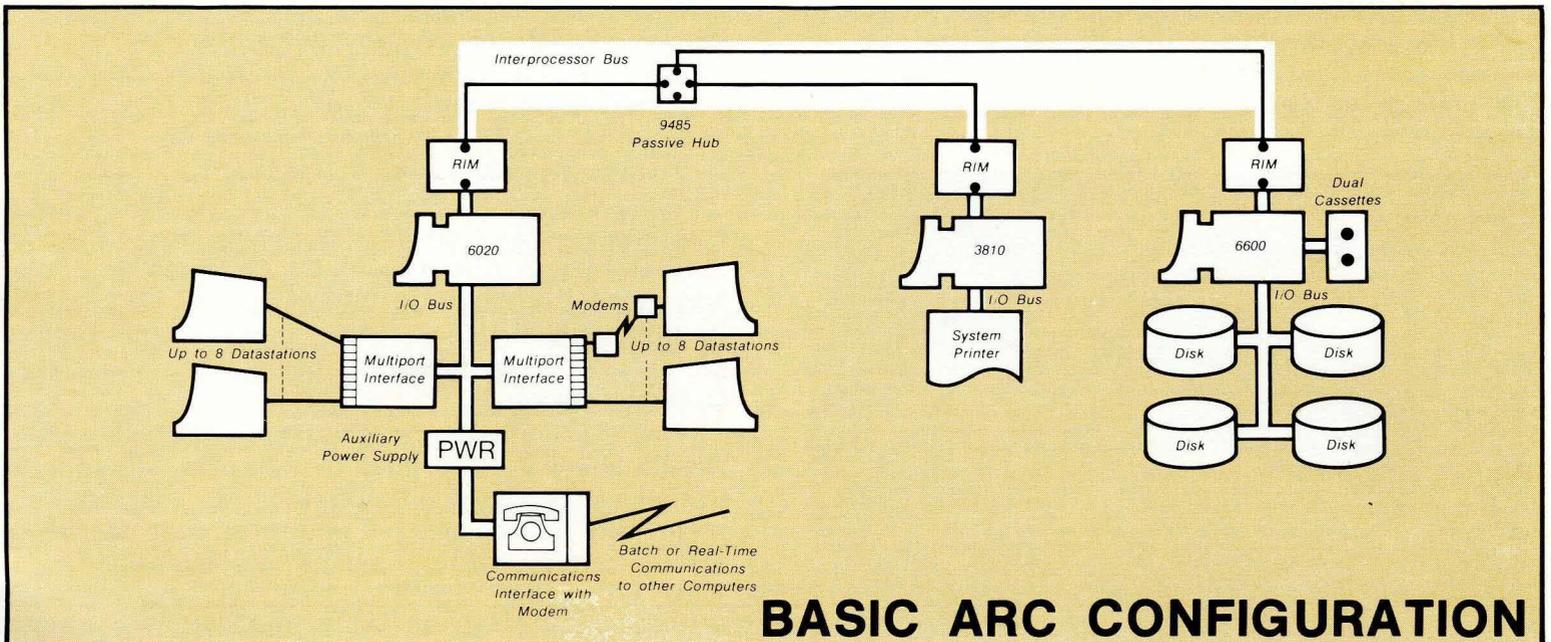
BASIC ARC CONFIGURATION

New, ARC System-Dependent 6000 Series Attached Processors Announced

Picture a computer based on the powerful Datapoint 6600 Advanced Business Processor, capable of supporting a wide range of Datapoint peripheral devices and virtually all Datapoint software while accessing an unlimited amount of on-line disk storage, yet designed to sell for a mere $15,216 or -- on a three-year lease -- lease for only $573 per month.

The new Datapoint 6020 Attached Processor -- with 120K of user memory, 600 nanosecond memory cycle time, enhanced instruction set, typewriter-style keyboard, 11-key numeric pad, 5 control keys, video display screen, capable of supporting up to 24 user Datastations, synchronous and asynchronous communications interfaces and modems is just such a computer.

The Datapoint 6010 Attached Processor -- identical to the 6020 in all respects but memory size and price -- is another. A 6010, costing $11,616 and leasing for $423 per month on a three-year lease, contains 60K of user memory and can support up to 16 user workstations.

Both members of the 6000 series are ARC system-dependent. Their excellent cost-effectiveness derives from this fact. Manufactured without cassettes, the 6020 and 6010 contain built-in program loaders and Resource Interface Modules (RIMs) for easy integration into ARC systems.

The 6000 series Attached Processors offer business users an easy, low-cost way to build present Datapoint systems into open-ended ARC systems.

3800 Series Attached Processor Announced

Up to now, computer systems put some kind of arbitrary limit on each of their component resources. After the user reached that limit, to add just one more printer or one more user workstation required an upgrade to the next bigger computer -- assuming one existed.
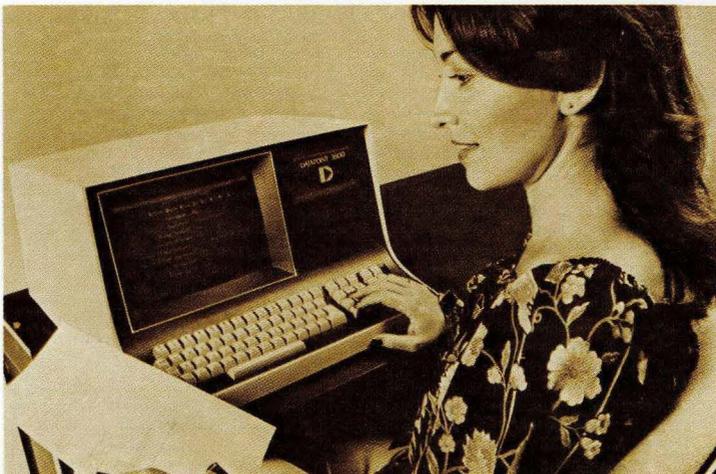
But now that Datapoint's concept of Attached Processing is a reality through the introduction of the Attached Resource Computer system, the business data processing user can attach additional component resources in the exact quantity needed -- to an existing ARC system in the form of Datapoint's new 3800 Series processors.

The 3820 is a single-user computer with 120K of user memory. Operating as an Applications Processor in an ARC system, the 3820 can generate and execute programs in COBOL, BASIC, RPGPLUS, DATABUS®, and DATAFORM®. It can support batch or real-time communications. And it can support any Datapoint printer.

The 3820 gets its operating system from the ARC system to which it attaches by way of a built-in loader and Resource Interface Module; it is very attractively priced. $10,790 buys one, or it can be leased for only $420 per month on a three-year lease.
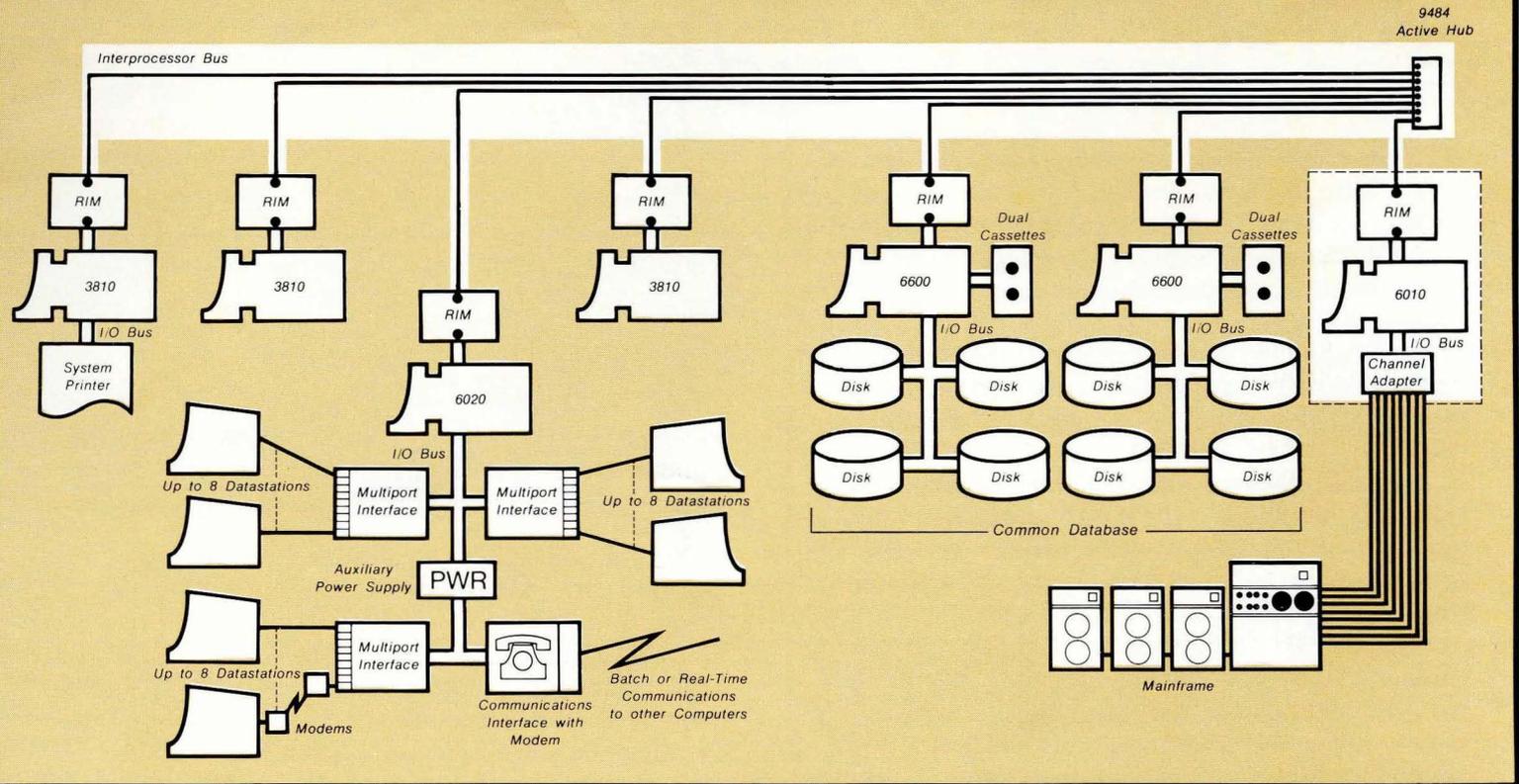
Direct Channel Interface Option Lets IBM 360/370 Series Participate in ARC Systems

IBM 360/370 mainframe systems may access all ARC system resources -- such as common data bases and peripheral devices -- by means of Datapoint's Direct Channel Interface Option.

Through the DCIO, any IBM 360/370 can participate as an Applications Processor within an ARC system. It can execute applications programs in COBOL, PL/1, RPG, BASIC, FORTRAN, or other IBM languages, using data stored in the ARC system. The IBM computer can partition as many as eight applications programs to concurrently use ARC system data bases in full duplex mode.

No modifications to the IBM operating system are needed. No telecommunications style overhead is required in the 360/370 system; the DCIO formats and manages all requests for data from the IBM system and all responses by ARC system File Processors.

To a 360/370, the DCIO looks like eight full duplex unit-record devices on its byte multiplexer channel. Speed of data transfer, however, is 40 KBytes per second -- much faster than any unit-record device. To ARC system File Processors, the IBM requests appear as those of another Applications Processor. The DCIO ensures that data transfer between the two systems is completely transparent to all users.

The DCIO consists of a 6010 Attached Processor, a Resource Interface Module, a channel adapter, and the DCIO software. Purchase price of the model 4645 DCIO is $22,208 including installation. Its three-year lease price is $918 per month, maintenance included. The DCIO will be available for delivery in mid-1978.

Performance and useful life of 360/370 systems and their applications programs can be enhanced and extended by granting them access to ARC systems through the DCIO.

ARC System Documentation, Information Available

There's a lot more to Attached Processing and the Attached Resource Computer system than can be squeezed into the pages of a Datapoint Digest.

Fortunately, a large amount of illustrated printed material is available for those who require more information of any kind about ARC.

Perhaps the best item for persons who are complete newcomers to data processing in general and Datapoint's approach in particular is a brochure entitled "The Attached Resource Computer System" (Model Code 60534).

For the more knowledgeable, an ARC System Catalog (Model Code 60530), illustrates sample ARC system configurations to help users learn how to choose the kind and amount of processing power they need.

A Simplified User's Guide to the Attached Resource Computer (Model Code 50298) provides detailed information on ARC system operation to a depth consistent with non-technical user demands. Technical information about ARC system configuration, operation, and system maintenance is contained in the ARC System User's Guide (Model Code 50299).

Newly announced ARC system hardware components are described in one-page flysheets available from Datapoint sales offices. The 6000 Series Attached Processors flysheet (Model Code 60538), the 3800 Series Attached Processor flysheet (Model Code 60536), and the Direct Channel Interface Option flysheet (Model Code 60539), offer photographs and functional and physical characteristics of these new ARC-dependent products. A single flysheet (Model Code 60537) describes components of the ARC Interprocessor Bus -- the Resource Interface Module, the Active Hub, and the Passive Hub -- all on one page. The contents of all four flysheets will be included in the next revision of the Datapoint Equipment Catalog.

DOS Version 2.4 Released for All Drives

Datapoint's Disk Operating Systems for all types of on-line storage media have been rereleased in Version 2.4., incorporating a large number of enhancements and improvements to Version 2.3.

Among other things, BACKUP with reorganization now allows any drive (except the "booted drive") to be the output drive, BLOKEDIT will handle records greater than 256 bytes long, and KILL now displays the Subdirectory name prior to killing a file -- important in ARC systems.

DOS.A is the Disk Operating System for Datapoint 2200 processors with 9350 series disk drives. DOS.B is for 2200 processors using 9370 series drives.

DOS.C is the Datapoint DOS used by 2200 and 1100 diskette processors equipped with 9380 series drives. It is available in a choice of configurations. On one diskette, the DOS system utilities are contained in the library file UTILITY/SYS. Or you may obtain the diskette with system utilities as separate commands.

DOS.D is for 5500 and 6600 processors using the 9370 or 9374 disk drives -- the required DOS for Datapoint's new ARC system.

DOS.E is used in 5500 or 6600 processors equipped with 9350 series (4K disk controller) drives.

DOS.D and DOS.E also have "memory-resident" overlays and DOS functions; this greatly speeds up the DOS batch-type utilities such as SORT, INDEX, and COPY.

DOS.H is the Diskette Operating System for the new 1500 Dispersed Processor using the dual diskette drive module. (See the 1500 story on page 5.)

DOS Version 2.4 is released for them all. Incidentally, users really should read Chapter 5 of the DOS 2.3 User's Guide (Model Code No. 50216) before attempting to upgrade to DOS 2.4.

Powerful, Economical 1500 Dispersed Processor Announced

The Datapoint 1500 Dispersed Processor combines the functions of intelligent data entry, processing, and communications from dispersed locations into one package complete with on-line diskettes for the price of $5,950. It puts ready-to-use computer power into thousands of business locations of all sizes that could never afford it until now.

A 1500 offers a 24-line screen with programmable highlighting -- dark on light -- of individual characters, 32K of user memory, built-in auto-answer communications interface, and five programmable function keys together with dual diskettes capable of storing up to half a million characters on-line. All this is standard. A Datapoint 80 cps or 160 cps Freedom Printer is optional.

Every 1500 is delivered complete with all available software and related User's Guide. This comprehensive Datapoint software package is a part of the 1500 system and is included in the $5,950 price -- it features a multitasking Disk Operating System (DOS.H), a wide range of utility programs, the DATAFORM data entry language, the DATABUS business data processing language, and proven Datapoint communications software such as DATAPOLL™ or the 3780 Emulator.

In many applications, it is convenient to have a computer do two tasks at one time -- for example, keying in the afternoon's transactions while concurrently printing a report of the morning's transactions, or keying in transactions while concurrently transmitting data stored on diskettes to a central computer site. The 1500 does such concurrent processing very simply and easily.

More information about this computer for any business location is available in the 1500 brochure (Model Code 60496-01), which contains not only illustrated descriptions of how to use the computer, but also its installation requirements, operating instructions, and technical and functional specifications.

A complete, easy-to-use computer system for $5,950 -- at that price, many new applications become cost effective.

Freedom Printer Family Expanded

The Datapoint family of Freedom Printers has been expanded to include higher speed 160 character-per-second models. As with the 80 cps Freedom Printer, the 160 cps version is available in both serial and parallel interface configurations. A Dual Tractor option is also available.

The 160 cps Freedom Printer provides added performance and convenience. Print head life has been increased to a minimum of 100 million characters. Features include a customer-replaceable print head and a convenient cartridge ribbon with increased life.

The character font supplied is the standard ASCII 96 character set using the 5 by 7 dot matrix.

When attached to the new 1500 Dispersed Processor, the 160 cps Freedom Printer delivers formidable business data processing printer power.
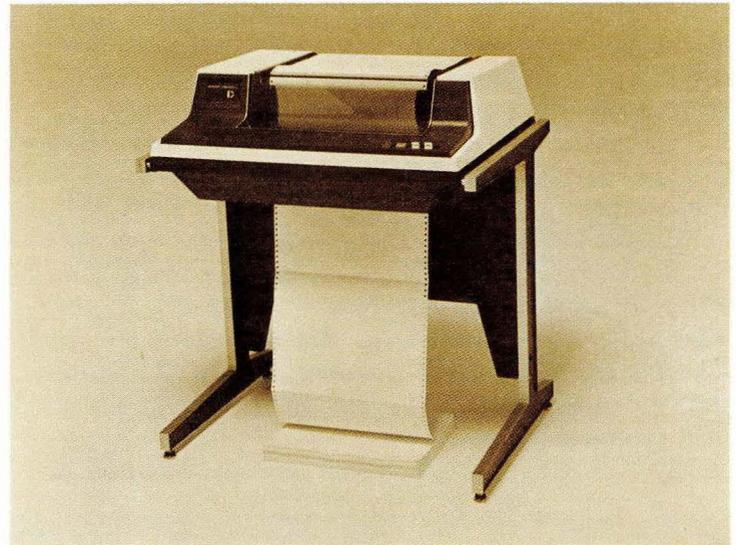
Williams Co. Does Real Estate Management Information System with DATASHARE®

Williams Real Estate Co. Inc., of New York City, may be the first in its industry to operate a sophisticated management information system in a dispersed data processing environment.

Williams leases spaces and manages approximately 200 commercial buildings all over New York City. About 150,000 people go to work every day in the more than 22 million square feet of space that is its responsibility.

In 1969 Williams executives decided to explore what the computer could do for them, and how to justify its cost. They sought an initial area of computer application that would yield immediate payback, and found it in real estate lease escalations.

Calculations are complex, repetitive, and subject to human error and misinterpretation.

Success at automating escalations led to a search for a comprehensive Management Information System (MIS). The hunt was a long and disappointing one. Typical hardware offerings featured high equipment charges. As for software, almost everything touted as a real estate MIS turned out on close scrutiny to be far too simple and unsophisticated to meet Williams' needs.

Then Williams learned that a Boston firm, The Analytic Sciences Corporation (TASC), had created a residential real estate management system on a Datapoint Cassette 1100 Dispersed Processor. Williams and TASC worked together in revising the system to satisfy the more sophisticated requirements for management of New York commercial properties.

In operation, the TASC Real Estate Management System provides multiple data entry and validation capabilities. Transaction files thus created are periodically collected by telephone each night. Using DATAPOLL, unattended Datapoint computers transfer data to a remote central computer for processing.

The DATASHARE system can support up to 16 interactive workstations and up to as many as 16 different applications can run concurrently. During working hours, for example, clerks at Datapoint 3600 Datastations throughout Williams access individual tenant accounts, perform data entry and access audit trail transaction journals.

Yet the accounts receivable actions reflected on the 3600 Datastation screens are only "scratch pads." No clerk-operated programs actually carry out any of these functions. Only when a tenant's records are released does a separate, system-controlled program automatically take over to process transactions for that tenant.

This ensures, among other things, that transactions are not inadvertently posted twice to the same journal. It protects, too, against power failures which could cause undetected loss of transactions.

Communication between these background programs and the interactive, Datastation entry programs relies upon Datapoint's MULTILINK™ telecommunications enhancement to its DATASHARE language. It enables instant direct exchange of data between user programs executing in a single processor. Program selection menus and data entry screen displays are tutorial, making operator training fast and simple. Clerks quickly gain a sense of how well the system as a whole is working; its ability to give immediate answers makes them feel that they are in total control. The TASC/Williams system enjoyed smooth implementation and full acceptance, because those who must use it understand it.

As a byproduct of the fundamental accounts receivable transactions it processes, the Datapoint 4530 system also keeps summary statistics and batch details of outstanding balances on all properties. It readily produces daily cash position bank balances -- cash flow information -- for owners of all the 200 different Manhattan properties managed by Williams.

"Very early in our exploration," says Williams' Administrative Vice-President Alan Hoffberg, "we envisioned a system which would use a small computer in the office and a larger computer elsewhere. TASC's choice of minicomputer was excellent. Although it is physically small, it possesses a powerful processing capability, and we have been very pleased with the maintenance for it."

Whatever the future may hold, Williams feels itself well prepared with TASC's dispersed processing Real Estate Management Information System to surpass its competition in the fastest, toughest, highest-valued real estate market in the world.

DS45500, DS46600, and PS66 Revisions Released

5500 DATASHARE IV and 6600 DATASHARE IV Version 1.6 were released in late September, containing enhancements and improvements relating to allocation of virtual buffers, ROLLOUT of programs whose data resides in disk buffers, display at 9600 baud, printer spacing and positioning, and execution of KEYIN and DISPLAY statements within the range of PI instructions.

5500 DATASHARE IV is a 16-port version of DATASHARE IV specifically designed to operate from cartridge or mass storage disk on a Datapoint 5500 system. 6600 DATASHARE IV is a 24-port version which operates on a 6600. Both execute programs written in the DATABUS language and compiled using DBCMP Version 2.

PS66 Version 1.2, a 6600 dual-partition supervisor for DOS.D and DOS.E systems, has also been released containing changes that allow it to execute on DOS 2.3 or any later revision of the Datapoint Disk Operating System.

Revised Catalog of Applications Software Available

It keeps growing larger -- the Field-Developed Applications Software Catalog, containing a list of forty software vendors and Datapoint customers who have software available for Datapoint equipment. It's now a fat booklet of 102 pages, containing 140 descriptions of various software packages or user-developed utilities.

Its variety is astonishing -- Accounts Receivable, Accounts Payable, Financial Forecasting, Insurance Agency Accounting, Mailing List, Manufacturing Order Processing/Billing, Medical Industry systems, Savings & Loan Accounting, and Word Processing systems -- to name but a few entries ranging from the mundane to the exotic.

As always, the Applications Software Catalog is provided as a service to Datapoint customers who have software needs or software to sell, and is offered without guarantee or recommendation as to the usefulness, efficiency or performance of the goods described. Also, Datapoint does not maintain or support copies of this software; users and sellers must contact one another directly.

Persons or firms wishing to advertise their wares in the catalog should send a description of the package in the catalog format to the Product Marketing Department, 9725 Datapoint Drive, MS#M71 San Antonio, Texas 78284. To obtain a copy, send your order to Datapoint's Software Distribution Department. MS#P39.

Guide to Software Vendors -- January 1978 Edition

Datapoint offers an extensive selection of operating systems, high-level languages and utility programs to simplify the creation of application systems and programs by its customers. Sometimes, however, customers need an application package written to specification for their business.

Accordingly, Datapoint offers a list of professional programming companies that prepare customized application systems. If that's what you need, consult the Guide to Software Vendors, Model Code 60258. It's available free from any Datapoint Office.

"Actually, I was looking for a copy of the Wall Street Journal ..."

COMMUNICATIONS MANAGEMENT PROD

INFOSWITCH™ Station Message Detail Recorder

In the past, most business firms were not really concerned with the volume of local phone usage because business telephone lines were supplied on a flat rate basis. Now, with the trend toward message unit charges for local and directory assistance calls, these same companies have found it necessary to account for all local and long distance outbound calls in order to control and reduce overall telephone communications costs.

So Datapoint has added an INFOSWITCH Station Message Detail Recorder to its growing line of telecommunications management systems.

The INFOSWITCH/SMDR extends the existing INFOSWITCH long distance telephone control system into a full telephone management system capable of monitoring all outbound telephone calls.

Part of the system is a Datapoint host computer. Another part is an intelligent switching subsystem

Local or Remote Links

Multiport Interface

Display
Keyboard

Host Processor

Dual Cassettes

Disk

Printer

Magnetic Tape

Batch Communications to other computers

Communications Interface with Modem

for long distance call control. The SMDR part is an intelligent metering subsystem for monitoring and collecting message details on all local calls, directory assistance calls, and tie-line calls processed by the system.

Information included in the call record consists of station or caller I.D. number, date, time, and duration of call, and destination number.

With information of this kind on record, corporate managers can act effectively to reduce personal telephone abuse or misuse, as well as more fairly allocate outgoing telephone communications costs to individuals, departments, or divisions.

INFOSWITCH/SMDR can support from as few as 16 to as many as 2048 station lines, whether rotary dial, tone dial, or both. Larger configurations are possible with multiple INFOSWITCH/SMDR systems. A variety of interfaces and modems for external communications are also available.

INFOSWITCH/SMDR is an invaluable and efficient management and accounting tool for companies seeking control of large tie-line networks or detailed information on local message unit telephone traffic.

INFOSWITCH/SHARE Announced

Datapoint's computer-based INFOSWITCH/SHARE system allows multilocation corporations to economically distribute intelligent long distance telephone switching (LDCS) and intelligent local and tie-line metering (SMDR) facilities in field offices, yet maintain centralized control over the corporate telecommunications network and data base.

At the hub of any INFOSWITCH/SHARE system is a powerful Datapoint host computer, equipped with one or two high-density cartridge disk drives which provide ample call accounting data storage space.

Located at corporate headquarters as well as in geographically dispersed corporate sub-headquarters are INFOSWITCH/SHARE intelligent switching and metering subsystems. They recognize long distance call requests, collect user-dialed digits, communicate with the host computer via full duplex 1200 baud channels, and thereby process long distance calls. With these units, separate corporate entities can tailor access and routing of long distance calls to their own requirements, while at the same time operating under full control of headquarters
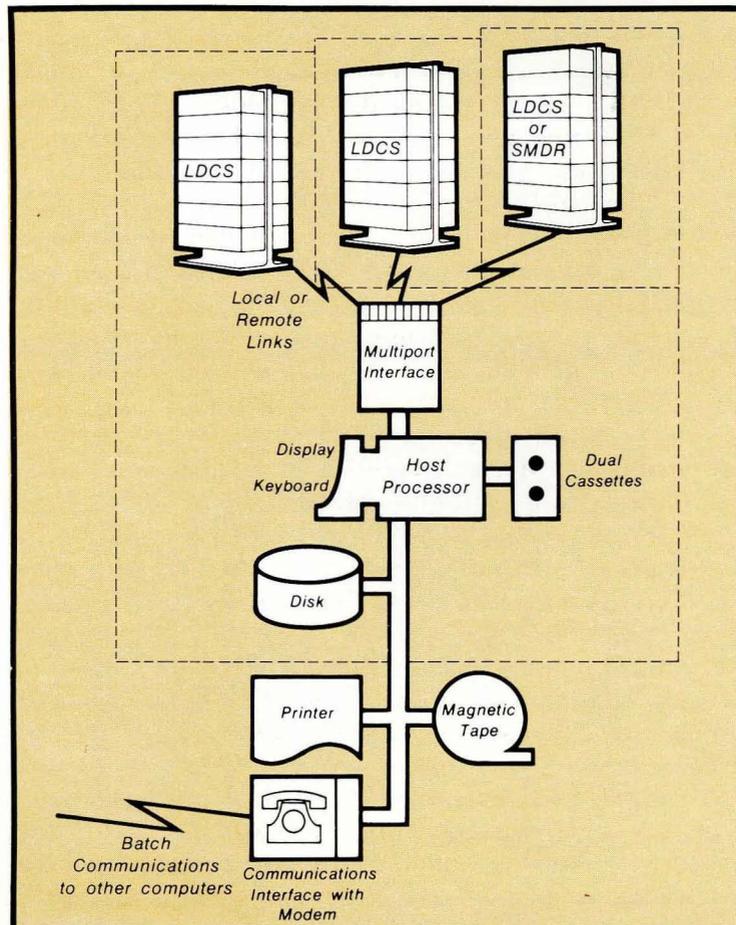
communications management.

In addition, INFOSWITCH/SHARE may also include intelligent metering subsystems. These devices can monitor all long distance, local, directory assistance and tie-line calls originating in a company or field division. Comprehensive call records produced in this way are stored by the headquarters host computer for subsequent analysis.

Both kinds of subsystems -- the intelligent call switching and the intelligent metering devices -- can operate autonomously if connection with the host computer is interrupted. In INFOSWITCH/SHARE systems with more than three intelligent switching and metering subsystems, a second host computer with manual "fall-back" controls is provided to ensure network operational integrity.

INFOSWITCH/SHARE systems are turnkey units requiring no user programming. They may be used in conjunction with any standard PBX or Centrex facilities. They may grow as large as six intelligent switching subsystems handling up to 250 long distance trunks. Up to three intelligent metering subsystems may be substituted for three switching subsystems.

INFOSWITCH/SHARE can save large multisite corporations large amounts of money, while making telecommunications more efficient, more convenient, and easier to manage.

New, Economical INFOSWITCH Automatic Call Distributor

The newest addition to Datapoint's growing line of telecommunications management systems is one which offers businesses of all sizes an affordable means of controlling and measuring incoming telephone call traffic.

INFOSWITCH/ACD is extremely versatile. It can automatically distribute arriving calls among agent groups -- as in a reservation service. It can collect billing data on incoming toll calls such as FX or WATS, or originate high volumes of calls in telephone market research or sales programs.

Each system consists of a Datapoint host computer, attractive and versatile agent telephone instruments, and an intelligent switching subsystem for automatic distribution of calls. Also included are one or more Datapoint video display supervisor consoles, a multiport communications interface, and
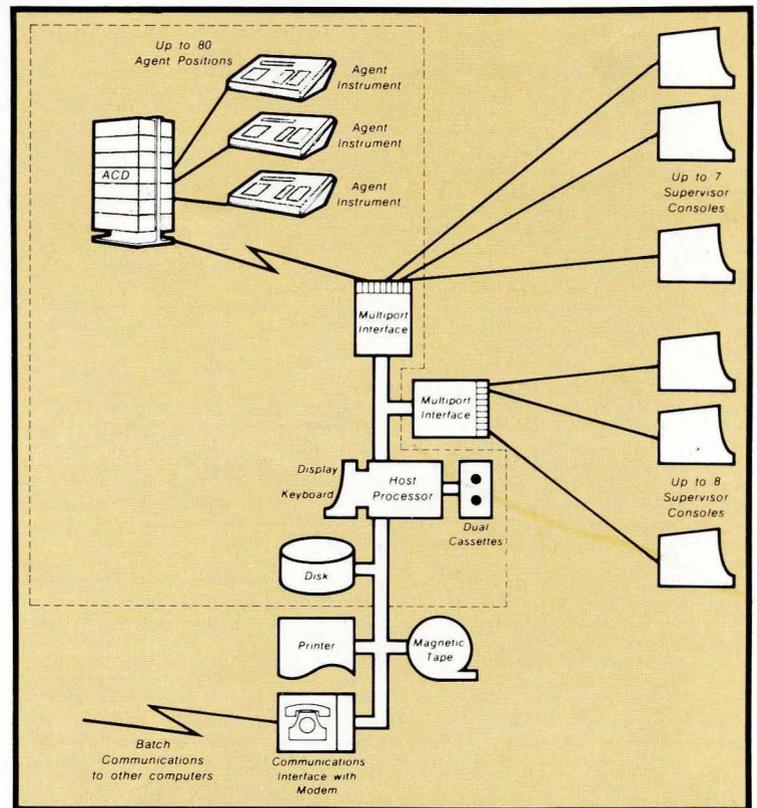
a large amount of on-line disk storage.

Each agent telephone instrument has a standard tone-dial pad, a function key cluster with backlit status indicators, and can be fitted with either a lightweight headset or a coiled-cord handset.

The function keys let an agent originate any type of outgoing call, extend an incoming call to another agent group or outside line, signal the supervisor for help in monitoring or handling a call, initiate a conference call, or flash an emergency.

Programmed independently by the intelligent switching subsystem, the backlit indicator functions tell the agent the current status of the call in progress, and whether other calls are being held in a queue.

Supervisors' instruments permit placing calls or intervention for control and direction of agent activities. In addition, supervisors have Datapoint video display consoles which grant them immediate access to line use data, system usage characteristics, and information on agent performance by individual or group for the week, day, and hour. Supervisors' consoles can also access stored accounting and cost information when

Capital Area Vocational Center Has One of the Best Data Processing Training Programs in Illinois

Capital Area Vocational Center (CAVC) of Springfield, Illinois, is using a Datapoint DATASHARE system to help provide its students with one of the finest high school level data processing programs in the state. The data processing curriculum consists of a first year introductory programming course, a more advanced second year programming course, and a data entry class.

"The philosophy behind our vocational program," relates Duane Higgins, instructor, "is that youngsters should be given the opportunity to train in a "hands-on" environment, which will prepare them for the professional and technical demands of a specialist-oriented business world."

Hence, the data processing course uses the most up-to-date equipment available, purchased from Datapoint after an in-depth market study of computer manufacturers and distributors, begun by CAVC in 1976 with several objectives in view.

It wanted equipment that would allow for flexibility in training, give students the kind of comprehensive data input training required by industry, provide multiuser local data processing capabilities and at the same time accommodate an easily accessible communications link with a central IBM computer facility located in the Management Information Division (MID) of the State Department of Finance.

Datapoint's multiuser, multitask DATASHARE business processing system satisfied all these requirements.

"In the past," explains Higgins, "we leased the services of a private vendor to run student programming jobs on an overnight basis. Although these services were provided at a reasonable cost, the expense began to be prohibitive and the actual facilities were inaccessible to our students." Now, with the low-cost facilities of a Datapoint DATASHARE system, the students not only have access to the central IBM computer at MID, but they can also use the powerful computing and storage capabilities of the Datapoint 5500 processor upon which the system is based.

Second-year students at CAVC devote most of their time to advanced programming techniques and creating various business-oriented application programs, the majority of which are written in COBOL and IBM Assembler language. Students use the 3600 workstations to enter their programs, and then transmit them, via the 5500's HASP 20 communications package and a Datapoint multifunction communications interface, to the IBM computer facility for compilation and execution. After a program has been compiled and executed on the IBM, a data entry student at a 3600 workstation may retrieve the program and run a data input test on it.

The DATASHARE system in use at CAVC consists of Datapoint's 5500 Advanced Business Processor, 300 LPM printer, sixteen Datapoint 3600 Datastation video display units for workstations, and several other peripheral devices. The 5500 processor can be configured with either a cartridge disk system or dual mass storage disk units.

Beginning programming students are given initial instruction in language orientation, disk concepts, core utilization, formatting and screen images. The primary language used in these beginning programming classes is DATABUS, selected because it is both easy to learn and can be used to write sophisticated programs in a short period of time. Also, student programs written in this language can be compiled and executed on the center's own 5500 processor.

Students enrolled in the data entry classes use the Datapoint 3600 workstations. Each of the sixteen 3600 workstations enjoys full access to the computing and storage capabilities of the parent 5500 processor, thus allowing for simultaneous student data entry and data retrieval operations. The students also find it easy to adapt to the typewriter-style keyboard of the 3600 workstations and the 5500 processor, and to keep the number of input errors to a minimum by using the display screens of their workstations to visually check previously entered data.

"The overall response to our program has been very good," observed Higgins. "The DATASHARE system has performed very well for us, and we have very little to complain about in the way of equipment reliability. More importantly, the dispersed processing power of this system has provided both our data entry and programming students with much more 'hands-on' equipment time. In a vocational environment such as ours, it is imperative that students be provided with these kinds of up-to-date facilities on which to train."

CONSOLIDATED PAPERS, INC., IMPROVES SERVICE WITH DATASHARE-BASED INVENTORY INQUIRY

When a customer phones in an order for paper or an inquiry about availability to the Enamel Paper Marketing Division of Consolidated Papers, Inc., the request is passed to an order planning representative in the Production/Inventory Control (PIC) Department at the Wisconsin Rapids Division.

Until 1976, PIC people did it all by hand -- inventory inquiries, order commitments, production scheduling, and keeping track of the manufacturing cycle to be sure shipping dates were met.

During the last five years, demand for Consolidated's merchant grades rose and the product mix changed from mainly rolls to more sheets than rolls. The manual system for storing information on roll and carton stock inventory bogged down. An order entry rep sometimes had to look at three different inventory books before responding to an inquiry. Customers were having to wait from five to thirty minutes or even more because order planners were queueing up to consult the inventory.
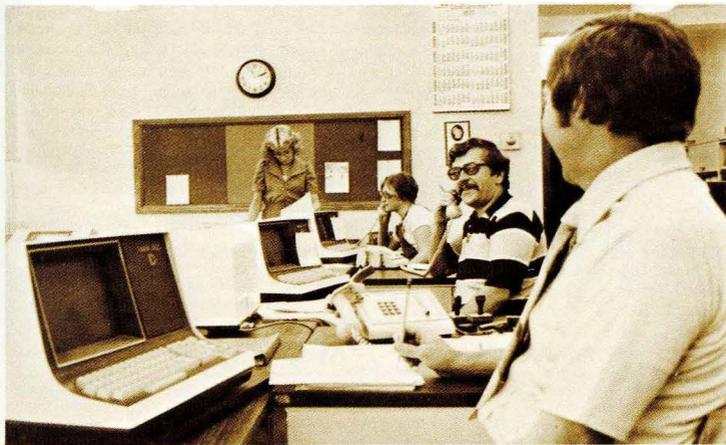
Considerably more time is required to process sheet paper orders because there are 280 carton items by grade, weight, and size. The normal sheet order requires six or more inquiries before being placed and frequent checks on the status after being placed.

Something had to be done to preserve Consolidated's market leadership, and the decision was to create -- and do so within six months -- a computerized inventory inquiry system that would supply complete information on available carton, skid, and roll stock instantaneously.

After reviewing the inventory systems of other paper manufacturers, Consolidated decided to design a simpler, faster computer system based on a minicomputer. An investigation of hardware offerings by a number of computer makers led to the choice of Datapoint's 5500.

Consolidated's Information Systems Department assigned two systems analysts and five programmers to the crash project. They got full cooperation from the PIC group, and defined the scope and functions of the system before learning DATABUS and starting to code.

In planning the system, much weight was given to human factors engineering. The system is programmed to require the fewest possible words or instructions entered in order to display the desired information. PIC personnel tested each segment of code during the development period using live data, so as to catch errors before the system went into use.

Now, when a customer inquiry is phoned in from Chicago, the order planning rep types simple instructions on a 3600 Datastation, and in seconds all the available sizes for a given merchant grade and weight of paper are displayed. A quote date is given and the order entered. The commitment is recorded and displayed with paper grade, stock size, order type, customer name, units promised and shipping date. Inventory levels are automatically updated to reflect the transaction.

The system allows viewing of the same inventory information on two or more Datastations at once. If two order planning reps are looking at the identical information and placing orders against it, each sees the results of the other's actions as well as his own. Inventories are continuously adjusted by entry of firm orders, shipments, and stock replenishments.

From an atmosphere of constant tension, the PIC staff has returned to calm efficiency -- a sure sign that the computerized inventory inquiry system is functioning to specifications.

But the DATASHARE system's main benefit has been to make the maximum customer waiting time even on complex orders five minutes.

This fast response has minimized switchboard tie-ups, immensely improved customer relations and increased Consolidated's ability to handle increased order volume. Consolidated Papers, Inc., retains its market leadership, thanks to DATASHARE.

CORPORATE SYSTEMS Helps Reduce Insurance Costs with DATASHARE

Financial managers of more than 800 U.S. companies can make more intelligent decisions about the kind and amount of insurance for their corporations -- thanks to Corporate Systems of Amarillo, Texas, and its DATASHARE dispersed processing system.

Corporate Systems uses advanced computer techniques to analyze and manage risk factors. It has cut the cost of insurance for some of its clients by as much as 30 percent -- clients whose annual insurance premiums run into millions of dollars.

Two Datapoint 5500 DATASHARE systems in Corporate Systems headquarters collect data from up to thirty-two 3600 client Datastations via leased or dial-up telephone lines. Programs in the DATASHARE systems guide the operators through complex data entry with minimal mistakes after very short learning times. Operator productivity has increased, and data entry errors have dropped significantly, since Corporate Systems eliminated the task of filling out forms manually.

When data has been gathered by the 5500 DATASHARE systems on magnetic tape units it is transferred to Corporate Systems' IBM 370 system, where it is used to develop management reports.

Weekly, or more often, reports go back to insurance brokers, insurance companies, government agencies and large corporations containing distilled information on which to base wise insurance purchases. Corporate Systems' clients include giants such as Allis-Chalmers, Ashland Oil, Gulf & Western Industries, U.S. Steel, and Coca Cola, Inc.

With the dispersed processing network, data is delivered to Amarillo so rapidly -- in comparison with former delays of days or weeks associated with mailing in of data -- that reports can be produced, if necessary, overnight.

The combination of reduced input errors, high data volume and rapid turnaround enables Corporate Systems' clients to maintain truly current profiles of all aspects of their risk management. And being current means saving lots of money.

RPGPLUS Announced -- Up to 200% Faster Execution Observed

Depending on the particular application, Datapoint's new RPGPLUS runs from 40% to 200% faster than previous RPG products.

There are three versions of the handy industry-wide report generator under the Datapoint banner: RPG II, which is 2200-compatible, RPG5500, which extends the language to take advantage of larger memories, and now RPGPLUS, which makes full use of advanced 5500 features, is supported within ARC systems, runs under Datapoint's Partition Supervisor (PS), and executes substantially faster than its predecessors.

RPGPLUS continues to be fully file compatible with other Datapoint languages, continues to be quick and simple to write, and continues to make conversion of programs from other computer systems very easy. It looks like the batch processing language of choice in an ARC system.

The 3810 Attached Processor can do everything the 3820 does -- up to the limits of its 60K of user memory. A 3810 may be purchased for only $6,950, or leased for $273 per month -- including maintenance -- on a three-year lease.

The 3800's employ a 24-line video display screen which can be made to display inverse video (dark characters on a light background) -- blink, page mode, and variable pitch and volume beeps and clicks for enhanced operator prompting, and five additional interactively programmable function keys for such things as tab or cursor positioning or conditioning program branching statements.

The 3800 Attached Processors are the answer when adding just one more module of processor power to an ARC system. They will be available for delivery in mid-1978.

On-Line Business Systems Available for 2200s

Datapoint's On-Line Business Systems -- General Ledger and Payroll -- are now available for 2200 processor-based systems.

A new DATASHARE interpreter, DS42200, allows these powerful, general purpose applications packages to run on the smaller 2200 processors by implementing the full 5500 DATASHARE language instruction set. Under DS42200, two operators can simultaneously process Payroll or General Ledger transactions and inquiries.

Both applications packages include modular Answer, Master, and Security programs that let managers regulate access to confidential information as well as authority to perform major system functions such as the taking of trial balances or printing paychecks. The two systems are also provided with a powerful Batch Operations Sub-System (B.O.S.S.) to enqueue, monitor, and log batch operations. Automatic capture of Payroll information for journalizing is possible. Interactive DATASHARE programs do personnel file management and inquiry, pay transaction entry and editing, chart-of-accounts maintenance, journal entry and editing, and selection of batch processes from up to two 3600 Datastations on a 2200.

For more information contact your Datapoint sales office or Datapoint Applications Marketing at (800) 531-7177.

DATASHARE On-Line General Ledger Overview

Datapoint's On-Line Business General Ledger system is designed to help customers get their DATASHARE systems productively operational immediately. It's a comprehensive, interactive, generalized system with the flexibility to satisfy a wide range of financial reporting requirements.

It provides a Batch Operations Sub-System (BOSS) which automatically does all queueing and scheduling -- by priorities if desired -- of batch jobs. It features a fully configurable Security Sub-System and it provides up to 10 user-defined journals plus one recurring entry journal.

Taking advantage of all the screen-formatting and interactive data editing capabilities of DATASHARE, the G/L system features account number verification as well as numerous field edits and balance controls during journalization. It provides a columnal General Ledger with beginning, debit, credit, and ending balance columns having hash totals for easy control checking.

Accounting periods per fiscal year may range from one to 52. Statements with flexible format include: Balance Sheet, Income Statement, Changes in Financial Position, Cash Flow, Retained Earnings, plus up to 99 Special Schedules. Divisional, departmental and consolidated statements with budget or prior year comparisons may be prepared. The system leads the operator step-by-step through the accounting cycle; this makes for simple installation and operation.

On-Line Business General Ledger System is available in source code with complete technical documentation for $2,450. Order Model Code 40234. For more information, call Product Marketing at (512) 699-7583.

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necessary.

Routing tables may program a variety of delays, announcements, music-on-hold recordings, and automatic intragroup and inter-ACD distribution sequences to optimize call processing.

INFOSWITCH/ACD systems may vary in size from 4 to 110 telephone trunks and from 4 to 72 agent positions, with 48 basic system configurations and a ratio of from 1-to-1 to 2-to-1 between incoming telephone trunks to agent positions.

Because the configurations vary so widely, prices also vary, but an example may illustrate the kind of economies possible. An INFOSWITCH/ACD system with 12 agent instrument positions, supervisor video console and Datapoint system printer included is $108,320. This system may also be leased for 1, 2 or 3 years.

Never before has this degree of telecommunications sophistication, versatility and power been available in a turnkey package for so small a price.

Training Center Schedule

San Antonio Training Center Tentative Schedule

Datapoint's San Antonio Customer Training Center has tentatively scheduled the following classes for the Winter and Spring of 1978.

Classes in DATASHARE will be held on the following dates:

Feb. 6th	Feb. 27th
Mar. 13th*	Mar. 27th
Apr. 10th*	Apr. 24th
May 8th*	May 22nd*
June 5th	June 19th*

The (*) means the class will remain closed until the preceding class load has been determined.

Classes in DATABUS will be held on the following dates:
Feb. 27th
Mar. 13th
Apr. 10th
May 8th
June 19th

D.O.S./Assembler classes begin on:
Mar. 27th
June 5th

Introduction to Datapoint Programming will be taught on:

Feb. 6th	Feb. 13th*
Mar. 6th	Mar. 13th*
Apr. 3rd	Apr. 10th*
May 8th*	
June 12th	June 19th

Disk Concepts and Operations will start:

Feb. 6th	Feb. 13th*
Mar. 6th*	Mar. 27th
Apr. 3rd*	Apr. 24th
May 1st*	May 22nd
June 12th*	

Advanced DATASHARE will be given:
Feb. 13th
Mar. 6th
Apr. 3rd
May 1st
June 12th

For class reservations, call (512) 699-7039.

New York City Training Center Tentative Schedule

The Customer Training Center at One Penn Plaza has the following tentative classes scheduled through March:

DATASHARE will be given:

Feb. 6th	Feb. 13th	Feb. 27
Mar.13th	Mar. 27th	

Introduction to Datapoint Processing will start:
Mar. 6th

For reservations or other information, call (212) 971-9270

Central Region Tentative Customer Training Class Schedule

Central Region, headquartered in Des Plaines, operates customer training classes on a short notice basis. Their schedule depends on how many people want what kind of instruction and when. Call (312) 298-1240 for reservations and more information.
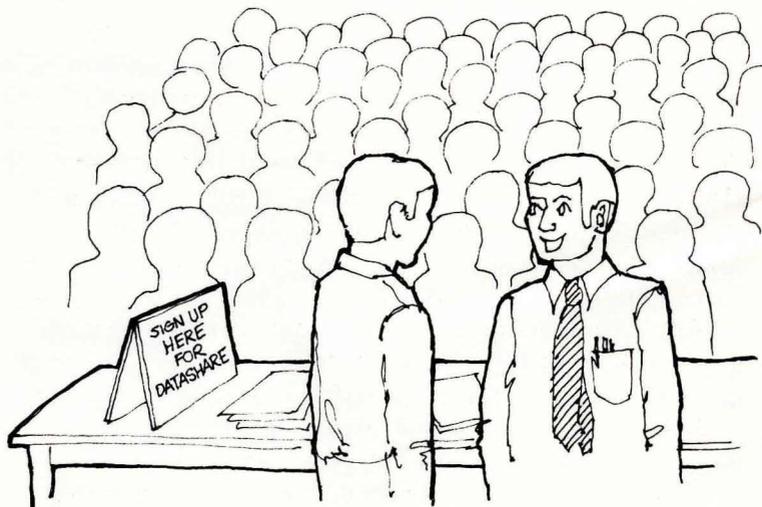
"I think we'd better expand the DATASHARE class schedule again!"

MLUN200 Released -- Univac UNISCOPE MULTILINK Interface

Another in the series of software "line-drivers" that permit DATABUS/DATASHARE programs to emulate the telecommunications disciplines of other manufacturers has been released. It is MLUN200 -- an external communications interface for DATASHARE IV.

MLUN200 permits a Datapoint 5500 DATASHARE configuration to communicate with a Univac processor over telephone lines, using the UNISCOPE line discipline. Up to 24 users may conduct such conversations in a DATASHARE system, using synchronous communication at speeds of up to 9600 bits per second.

DATASHARE programs that are to communicate with a Univac system must contain appropriate MULTILINK instructions such as SEND, RECV, COMTST, COMCLR and so on. You can learn how to use these high-level communications verbs in DATABUS/DATASHARE by reading Datapoint's A Simplified User's Guide to MULTILINK (Model Code No. 50284).

Other MULTILINK line-handlers emulate the telecommunications disciplines of Burroughs TC3500's, IBM 3770's and 3780's, and the Honeywell VIP terminals. The Burroughs MULTILINK telecommunications interface -- MLTC3500 -- has recently been upgraded to allow an increase from 16 to 24 simultaneous DATASHARE users as well as made compatible with Datapoint 6600 Advanced Business Processors.

of data storage media normally used to link separate databases in multiple computer configurations.

ARC systems do not use a central, controlling host computer. Failure of any individual processor in an ARC system, therefore, cannot bring all operations to a halt.

System resources are placed where they can most effectively handle various business data processing needs, and these resources are always available to all participating users in the ARC system.

ARC system software is completely compatible with that already used with Datapoint systems. ARC uses Datapoint's standard Disk Operating System (DOS.D) which permits fast and easy creation and maintenance of programs and files. Applications programs written in any Datapoint language -- DATABUS, DATASHARE, DATAFORM, MULTIFORM, BASIC, RPGPLUS, COBOL and SCRIBE -- execute in an ARC system without modification. A full range of communications software in a variety of disciplines is also provided.

Any combination of existing Datapoint processors -- the 6600, 5500, 1170 and 1150 -- may be used in an ARC system, thus providing an excellent upgrade path for current Datapoint users. In addition, two entirely new kinds of economical yet powerful processors -- the 6000 and 3800 series -- are being introduced. (See separate stories elsewhere in this Digest.) And if that were not enough, consider also that an IBM 360/370 series processor can participate as an Applications Processor in ARC via a Direct Channel Interface Option (see story on page 3.)

Finally, the modular architecture of the ARC system makes possible an indefinite extension of the powers and kinds of individual processors and other components that attach to it.

The concept of Attached Processing and the Attached Resource Computer holds so many possibilities that it takes time to begin to see them all. A computer system constructed in this way is so flexible and so moderate in cost that most commercial users will find it the perfect solution to present and future business data processing needs.
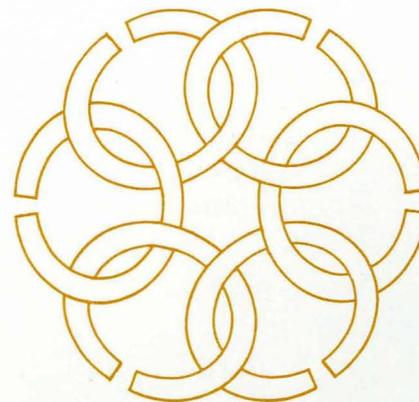
The ARC System

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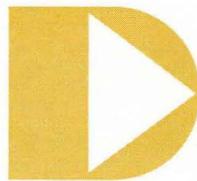
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