

The leader in dispersed data processing \*\*



# a capsule look at Datapoint Corporation

# DATAPOINT CORPORATION

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Datapoint's success is no accident. It's the result of a carefully coordinated sequence of products and systems designed for the dispersed user, backed by an extensive repertoire of operating systems, easy-to-use programming languages, and a national field service force which assures immediate attention to your service needs.

One of the features of Datapoint equipment which has made Datapoint an industry leader is that users may lease, buy or rent Datapoint equipment.

This booklet lists in capsule form the Datapoint dispersed product line, ranging from the least expensive cassette system to the most comprehensive DATASHARE system, and all their supporting peripherals.

A wide variety of brochures and catalogs describing the Datapoint product line are available from your nearest sales office -- see office list on back cover.



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# A Capsule History of Datapoint

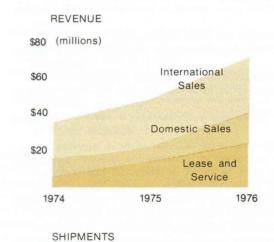
Datapoint Corporation designs, develops, manufactures, markets and services a compatible family of computer processors and related equipment oriented to dispersed business data processing applications.

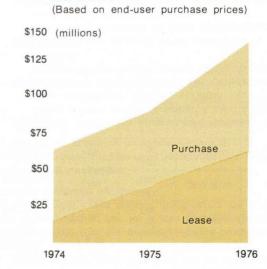
Incorporated in July 1968 under the name Computer Terminal Corporation, the company's first product, the Datapoint 3000 series of interactive video display terminals, was introduced in 1969. In fiscal 1971, the Datapoint 2200 processor was introduced. To reflect the shift from video display terminals to computer based Dispersed Data Processing systems, the company changed its name to Datapoint Corporation in December, 1972.

Datapoint's growth into a leadership position within an evolving and dynamic market is evidenced by an increase in revenues from \$5.4 million in fiscal 1972 to \$72.0 million in fiscal 1976 -- a jump of over 13 times in three years. Earnings before taxes during the same period moved from a reported loss of \$2.2 million in 1972 to a positive \$7.8 million earnings in 1976. Datapoint is well-positioned in both financial resources and professional management to continue its leadership role. Annual and Quarterly financial reports are available from your local sales office.

Independent studies indicate that all computer shipments will increase by more than 11 percent compounded annually, to a total of \$20 billion by 1980. Shipments of Dispersed Data Processing systems are projected to grow at an annual compound rate of over 30% during the same period and represent the fastest growing sequent of the worldwide computer market.

Datapoint sells and leases its products to domestic end users. Through a master distributorship agreement with TRW, Datapoint products are marketed internationally by TRW DATACOM.





### **Datapoint Software**

In the selection of data processing equipment, the availability of software plays an equal role with hardware selection. To meet business' demands for productive systems, Datapoint offers a wide variety of software which includes powerful operating systems, a wide selection of high-level languages, general purpose utilities, communications packages, diagnostics, and application packages.

#### The Operating Systems

With Datapoint computers, a powerful operating system forms the foundation of a program generation system and also becomes the master program under which the final applications program will operate. The operating system provides the programmer with a convenient and efficient means of file control and maintenance and assures compatibility between all data processing files. It also assures easy operator procedures.

It's important to notice that each operating system is fundamentally similar in syntax and structure. Because of the sameness, a programmer familiar with one operating system has a good knowledge of the others.

Datapoint offers two basic types of operating systems:

Disk Operating Systems- offer totally dynamic file management facilities for physical sequential, random, and index/sequential (ISAM) disk access. Five fully compatible Disk Operating Systems are offered depending on the disk configurations required.

Cassette Tape Operating System- is an interactive program designed for the cassette storage medium. A file structure for cassettes is defined so that programs or multiple data files or programs may be cataloged onto the CTOS tape.

#### File Compatibility

As all programs run under the operating systems, the file formats for the various storage devices, such as cassettes, diskettes, or disks, are determined by the operating system. This concept has many advantages in that files created under one programming language can be utilized in a program written in another. This approach eliminates

tedious and error-prone file conversion tasks - and keeps costs to a minimum.

#### **Programming Compatibility**

Bear in mind that all Datapoint systems are modular -- by a "building block" technique they can be augmented and increased in power as your field office workload increases. Programs are generally upward-compatible -- that is, programs written for a less powerful system can be run, in most cases without modification, on a more powerful Datapoint system.

#### **Programming Languages**

Several high-level programming languages are available, as well as an assembly language, including:

**DATABUS**- a business programming language that offers a wide variety of powerful file handling and data manipulation facilities.

**DATAFORM**- a straightforward forms generation program complete with editing and error-checking facilities.

**MULTIFORM**- the versatile forms generation of DATAFORM extended to three simultaneous users on a diskette-based processor.

**DATASHARE**- an interpreter that permits simultaneous execution of independent DATABUS programs, directed from up to 24 independent workstations.

DSNET- a powerful enhancement of DATABUS and DATASHARE, enabling remote disk files to be accessed and processed as easily as local files.

**MULTILINK**- another enhancement of DATABUS and DATASHARE to allow real-time telecommunications to a host computer.

**COBOL**- a popular, widely-used business data processing language.

RPGII- a language specially designed for business report preparation, compatible with other RPG languages.

**BASIC**- a fully interactive, mathematically-oriented language with line-at-a-time entry and immediate execution.

**SCRIBE**- a text processing language which provides extensive print formating capabilities.

ASSEMBLER- Datapoint's machine language.

#### Communications Packages

Datapoint's wide range of communications packages allows Datapoint processors to communicate with each other or with other mainframe machines.

**DATAPOLL-** This series of packages transfers files from one Datapoint processor to another, synchronously (at 2000, 2400, or 4800 Baud) or asynchronously (at 1200 Baud full duplex). Auto-dial and Auto-answer may be used.

Emulators- Where communications with a large mainframe computer is desired, Datapoint offers a wide range of packages that emulate various communication disciplines. IBM HASP/360, 3780, 2780; CDC, UT200, UNIVAC, DCT2000 are among those offered.

# General Purpose Utilities

These utilities aid in the generation of programs by

providing handy modules that are commonly used in most computer applications.

**General Purpose Editor**- facilitates the generation and updating or correction of any type of program or data file on cassette or disk.

**Input-Output Routines-** for use with assembly language programs. SORT and LIST are examples.

**Math Routines**- used as stand-alone programs or as assembly language subroutines, provide extensive mathematical functions.

#### Diagnostics

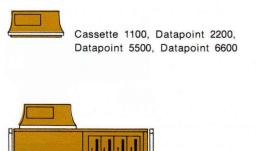
Processor and peripheral diagnostic programs are available to both customers and Datapoint's Customer Service Organization. With these diagnostic programs, the user has an effective means of recognizing hardware problems and the necessary steps toward correction.

## The Datapoint Family of Processors

Datapoint computers are designed to enhance an office, rather than detract from its appearance. Their clean, uncluttered design, together with their distinct family resemblance, make them easy to operate by non-technical personnel.

This clean, attractive appearance masks a highly sophisticated and powerful computing capability. Datapoint processors are recognized for their speed and flexibility which permit them to be used in a wide variety of applications including many applications where conventional - and much more expensive computing equipment - would be required.

Processor	User Memory Size	System Memory Size	Internal Storage Media	Cycle Time (microsec	
Datapoint 6600	120K	8K max.	Cassettes	0.6	
Datapoint 5500	48K	16K max.	Cassettes	0.8	
Datapoint 1170	48K	16K max.	Diskettes	0.8	
Datapoint 1150	24K	16K max.	Diskettes	0.8	
Datapoint 2200	4,8,12 or 16K	None	Cassettes	1.6	
Diskette 1100	16K	None	Diskettes	1.6	
Cassette	4K or	None	Cassettes	1.6	



Diskette 1100,
Datapoint 1150,
Datapoint 1170

	Datapoint Peripheral Equipment				
	Diskette Memory	Available as an option to the Datapoint 2200, 5500, and 6600, the diskette memory stores 256,000 characters of data per diskette. Access is completely random with typical times of under one second. Up to four drives can be used. Diskette memory is a highly cost-effective storage medium.			
	Cartridge Disk Memory	Applications requiring more storage and faster access will find Datapoint's cartridge disk systems both practical and versatile. Available in 2.5, 5, or 20 million character sizes, these cartridge disks provide on-line data storage of up to 160 million characters. Access time is typically 70 milliseconds.			
	Mass Storage Memory	Where data volumes are high, this multiple platter disk supplies 25 million characters of storage per drive. Up to eight drives may be used with the 5500 or 6600 processors, two drives with the 2200 processor.			
	Magnetic Tape Memories	Reel-to-reel tape systems provide a convenient means of storing large quantities of data and also provide a means of transferring data to non-Datapoint processors. Data is recorded in an industry-compatible format and may be read by other tape drives. 556 and 800 bpi 7-track and 800 and 1600 bpi 9-track are available. A 10 1/2" tape drive (not shown) is available.			
	Servo Printer	This impact printer prints fully-formed typewriter-quality upper and lower case characters on a 132 column format. Printing full lines, the servo printer is rated at 30 cps but higher throughput is attained because the printer will slew or skip quickly over blank areas. Paper is fed via tractors or friction rollers and the tractors are adjustable to handle small-width paper, such as labels.			
	Freedom Printer	This 5 X 7 matrix printer features a dual tractor option, modular design for easy servicing, adjustable print impression, adjustable forms length and line feed controls on each tractor, and excellent print quality on up to 6-part paper. The internal processor allows the printer to print at rates often exceeding the rated 80 characters-per-second. A serial model is available for use as a remote terminal printer.			
0000	Belt Printer	Compact, yet fast, the 120 column belt printer produces text at 60 to 120 lines per minute. The 132 column version of this printer (at right) prints at 120 to 340 lines per minute. Characters are fully formed with upper and lower case fonts.			
	Line Printers	For applications requiring high volumes of printing, two models of line printers are offered with print speeds of 300 or 600 lines-per-minute. A drum method of printing is used which yields excellent reproduction on either single sheets or 6 part carbon-interleaved, multipart forms. The freestanding printer unit allows easy access for paper changes.			
	Card Reader	For applications requiring punched card input, Datapoint's card reader offers 300 cards per minute input. It is extremely tolerant of bent cards or errors in punch registration (+ or - 40% of normal). The card reader can be mounted on any table top and connected directly to any Datapoint processor.			
and the state of t	Communications Adaptors	Asynchronous, bisynchronous, and synchronous communications adaptors allow transmission at rates up to 9600 baud. The advanced multi-function communications adaptor accommodates ASCII, EBCDIC, and other code sets with automatic CRCC error checking. Datapoint also offers a multiple port communications adaptor, a Bell System 103-compatible data coupler, and a CCITT communications adaptor.			
	Video Display Terminals	The 3600 Datastation is a low cost video terminal intended for use with the DATASHARE multi-terminal timesharing system. The 3000 and 3300 are teletypewriter compatible, interactive data terminals designed primarily for the computer timesharing user. A special version of the 3600 is available with conttrol keys intended for use with the MULTIFORM multiple-user forms generation package.			

DATAPOINT CORPORATION

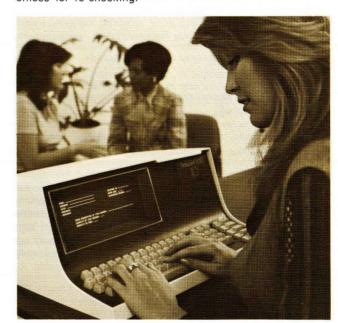
#### Intelligent Data Entry

Datapoint processors can be programmed to literally "hand-guide" an operator through data entry operations, signalling errors and relieving the operator from tedious and error-prone arithmetic and indexing operations. A wide variety of forms -- for sales order entry, accounts payable, etc. -- can be kept in storage and retrieved at any time. The system designer can elect to have data checked for format and text-type considerations only. Or the full power of the internal computer can be used to apply more complex error checking techniques to assure valid data,

Intelligent data entry involves four major aspects:

- Local Data Entry: Data is entered where the transactions occur. The processor, with an appropriate applications program, checks the entered data for validity and format and eliminates troublesome and costly errors at the source.
- Local Data Storage: Entered data is stored on a variety of media, including cassettes, disks, diskettes or tapes. Datapoint's operating systems provide full file handling, data retrieval and editing facilities
- Local Data Processing: Personnel at field locations can run comprehensive data processing application programs to generate reports, checks, statistical surveys and other information without having to wait to use the home office computer. Data can be extensively pre-processed before being transmitted.
- Data Communications: Locally-captured source data can easily be transferred to the home office mainframe (or other Datapoint computers).

This concept of placing computer power out where the action is can result in substantial economies both from an operational and management viewpoint. Operational savings are seen immediately as expensive and time-consuming keypunching operations are eliminated, along with the often expensive transportation charges for punched cards. Management savings are realized by virtually error-free data due to the editing and pre-processing power of the Datapoint processors. This reduction in input errors can eliminate the time-consuming, large mainframe computer "edit" runs, and the resulting delays as information is returned to field offices for re-checking.



#### DATASHARE

DATASHARE is Datapoint's multi-user, multi-task, business data entry and processing system. DATASHARE allows up to 4, 16, or 24 simultaneous users to share the full capabilities of a Datapoint 2200, 5500, or 6600 processor. Many different programs can be executed at one time. One user may be updating inventory, another running payroll, and still another using the system for order entry.

Programs written in the powerful DATABUS language can be shared among some or all users. They can be restricted to certain users through security passwords.

DATASHARE allows local or remote terminal connections. Some DATASHARE users may be in the same room as the processor while other users are located across the country, linked by standard dial-up telephone lines.

Under MULTILINK extensions, DATASHARE programs can communicate in real-time to each other or to a host computer. This is a valuable tool when not all information is available on the DATASHARE system data base.

The DSNET module of DATASHARE allows the system's users to access the data files in a remote disk system by telephone connection. The remote system is treated as another Datastation by the DATASHARE program eliminating the necessity for file transfers.

A variety of configurations is available to suit user needs, including a version that runs on the diskette-based Datapoint 1170. DATASHARE may be used as a remote processing facility or as the home office center. DATASHARE also offers a convenient means to expand a single user facility into a multi-user capability.



System Number	Central Processor	Central Memory Size	Virtual Memory Size	Disk Size (Min.)	Disk Size (Max.)	User Terminals (Max.)
1170	Datapoint 1170	48K	128K	1MB	1MB	4
4220	Datapoint 2200	16K	128K	5MB	10MB	4
4520	Datapoint 5500	48K	512K	5MB	10MB	16
4530	Datapoint 5500	48K	512K	20MB	160MB	16
4540	Datapoint 5500	48K	512K	50MB	200MB	16
4620	Datapoint 6600	120K	768K	5MB	10MB	24
4630	Datapoint 6600	120K	768K	20MB	160MB	24
4640	Datapoint 6600	120K	768K	50MB	200MB	24

K =1024 characters (bytes)
MB =One million characters (bytes)

#### **Data Communications**

The transfer of business data to a central headquarters and the return of summary reports and management information is an important aspect of computer network operations. For efficient handling of this task, Datapoint has developed a powerful combination of hardware and software.

A variety of asynchronous and synchronous communications adaptors, a multiport communications adaptor, and a data coupler are available to speed data along standard telephone lines or over dedicated lines.

On the software side, the DATAPOLL communications package will automatically dial, receive, and transmit data asynchronously or synchronously with complete error checking. DATAPOLL is used for Datapoint-to-Datapoint processor communications.

To ensure ready compatibility with existing network operations, emulation packages are also available that enable the Datapoint processors to duplicate the transmission codes and line disciplines commonly recognized by mainframe computers.

Packages available include:

DATAPOLL (Datapoint-to-Datapoint)
IBM 360/20 workstation
IBM 3780, 2780, 2741
UNIVAC DCT2000
CDC 200UT
Teletype
and a variety of others

Additionally, MULTILINK is available for real-time communication between DATASHARE ports, or 1150, 1170, 5500, and 6600 systems and a host computer.

#### Nationwide Service

The ability to provide timely and competent service for your business system can spell the difference between success or failure. Datapoint realizes this and has built one of the most comprehensive and efficient service and parts networks of any computer manufacturer.

Dispersed Data Processing puts computer systems in remote locations as well as metropolitan centers. Datapoint service is geared to fully service these widespread users with a professional staff of service engineers controlled and scheduled from a national customer service center.

This center, located in San Antonio, is staffed 24 hours per day, 365 days per year. Users in any part of the U.S. needing service can call a single toll-free number.

Operators then locate the closest service engineer and secure a time commitment. The user is then called back (within one hour) and advised of the service time. By use of a large DATASHARE system, all system information such as equipment installed at a site and previous service history is immediately available to the operator.

Large network users may also access this service system to determine the overall service history of their equipment.

Part of this nationwide service includes a communication test facility. This facility is used to determine if a system is communicating effectively and, if not, to obtain a diagnosis of the problem. The test facility is available 24 hours a day, year-round and operates completely unattended from the user's site.

#### **Industry Programs**

To meet certain specific industry requirements several specialized application packages are offered.

DATACCOUNTANT packages are designed for the information processing functions of the accounting office. The DATACCOUNTANT package includes Client Accounting, Comprehensive Payroll, Professional Time

Accounting, and Accounting Utilities.

Datapoint's On-Line Business Systems provide businesses with real-time access to important management information, while furnishing a powerful data processing facility. Packages include Payroll and General Ledger processing.

Contact your local sales office for details.

# Software Vendors

Datapoint offers the user a complete line of operating systems, high-level languages and other utilities to create application programs.

In some instances, however, the user or prospective user will require an application package that is written to a specification for his business. In those cases, Datapoint offers a list of professional programming companies that do application programs to an individual customer's needs.

Although many of these companies have had extensive experience with Datapoint equipment, in no case does Datapoint Corporation guarantee results or support from any of these companies. The Guide to Software Vendors, available from your local sales office, is presented as a courtesy and service only.

# **Datapoint Literature**

The following literature can be obtained from your local sales office:

Equipment Catalog
Software Catalog
Systems Catalog
Annual Report
Computer Systems for Business
DATABUS Simplified User's Guide
DATAFORM Simplified User's Guide
DATAPOLL Simplified User's Guide
Techniques in DATASHARE, a Simplified User's Guide

Business Programming Concepts
Executive's Guide to Dispersed Processing
DATACCOUNTANT Brochures
On-Line Business Systems Brochures
Pre-Installation Guide
Applications Software Catalog
A Guide to Software Vendors
Price Lists