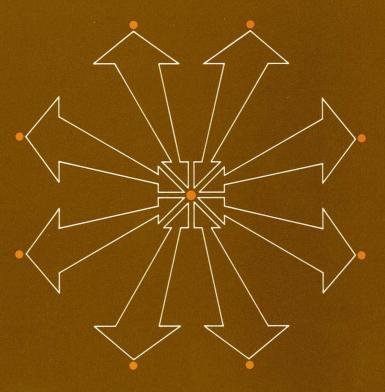
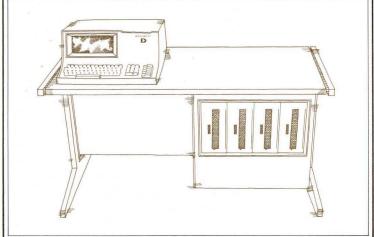


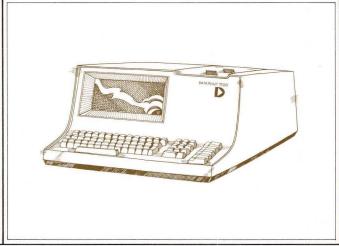
DATAPOINT INTELLIGENT TERMINALS DISKETTE 1100 CASSETTE 1100



Here's What Datapoint Dispersed Processing Systems Offer Users

- easy scan of the video screen display combined with programmable error-checks for error-free data entry
- the ability to easily create, as needed, display, and store a wide variety of data entry formats
- a powerful yet economic data processing capability on site in field offices
- large, economic local storage capacity for field office use
- a "virtual memory" capability that allows programmers to make maximum use of central memory
- automatic "off shift" polling of data stored in field office systems by a central Datapoint
- a comprehensive data communications capability compatible with all major main frame computers through proven line emulation routines
- a diversity of programming languages from which the user can select the one(s) best suited for his application(s)
- a complete roster of support peripherals, attachable as needed to dispersed processors in field offices, including tapes, disks, printers and communications interfaces
- the care and attention of Datapoint's nationwide and highly professional customer service force responsive to needs at all user network sites





Datapoint Dispersed Processing Systems for

- · Intelligent Data Entry
- Local Data Processing and Data Storage
- Data Communications

A break-through concept: placing computer power out where important business data is initially generated. Traditionally, business has relied on transferring data from field locations to a central large computer for processing. This transfer is often the source of delays and errors throughout a business. Delays and errors that cost money, and worse, ruptured business relations.

With the availability of low-cost computer-based dispersed processors from Datapoint, a business can now place in its field offices a complete data processing and data entry facility that can rival many conventional data

processing installations in terms of power and storage capability — but at a fraction of their cost.

Datapoint has pioneered the concept of dispersed data processing since 1970, putting computer power out in field locations where it can be used more effectively rather than confining it to a central computer facility.

Datapoint now offers two distinctive dispersed processing systems: The Diskette 1100 and the Cassette 1100.

The Diskette 1100

The Diskette 1100 incorporates a sophisticated general purpose computer, 16K fully programmable memory, a 12 line x 80 character high speed video display, a full ASCII keyboard and up to four diskette units. The diskette data storage units each hold up to 256,000 characters of program or source data. The flexible diskettes are a low-cost, easily used storage media that combine economy and speed of information access. Data can be recorded or retrieved in a fraction of a second.

System programmers will also appreciate the "Virtual Memory" capability of the Diskette 1100 which, through advanced segmentation and temporary storage techniques, will allow processing of programs substantially larger than the available central memory capacity of the dispersed processor.

A variety of peripherals can be attached to the Diskette 1100 including printers, magnetic tapes and communications interfaces. (see complete equipment specifications p. 14).

The Cassette 1100

The Cassette 1100 contains the same internal processor, has many of the same operating features and presents the same outward appearance as the Diskette 1100 but offers a maximum of 8K characters of memory.

This unit uses a dual Phillips-type cassette drive for both source and program data storage. It is tailored and priced for those applications where the data storage requirement is relatively small but where local processing power as well as data communications capability are required. The Cassette 1100 is especially well suited for those user situations where physical space is at a premium.



The Diskette 1100 utilizes a memory element that resembles a 45 RPM record and can be easily changed by a secretary.

DISPERSED DATA PROCESSING Allowing business to distribute computer power where it's needed most.

The availability of Datapoint's new breed of dispersed processing systems now gives the network systems planner the capability of placing both a powerful computer and a large data storage facility in remote offices at a cost that makes use of this equipment more than practical.

For Intelligent Data Entry

Dispersed data processing systems provide a new level of efficiency in "intelligent" data entry. Being computerbased, these systems can literally "hand guide" an operator through data entry operations, signalling errors and relieving the operator of 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, either automatically, or manually for video screen display. The systems designer can elect to have entered data checked for format and text-type considerations only. Or if he wishes, he can utilize the full weight of the internal computer to apply more complex error checking techniques and assure valid data.

The Cassette 1100 offers two internal tape cassettes for data storage.



Local Data Processing and Storage

Once entered, source data is stored on the local memory media and is available for subsequent revision and editing, or as a file for access and processing during the working day. The data subsequently may be transmitted to a central computer site for further processing. For instance, a field manager might wish to receive a printout of the day's local sales invoices with the list sorted alphabetically and a summary of the transactions, such as item count and total sales. This type of useful information can now be derived from data generated locally before that same data is transmitted to a central processing facility for summary reports preparation. From the perspective of an effective business operation, it's the best of both worlds.

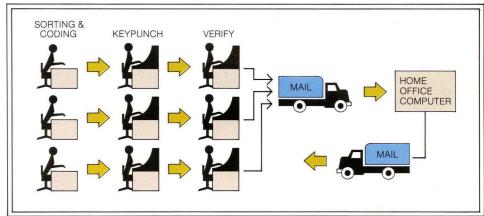
Data Communications

The transfer of business data to a central headquarters and the return back from the home office 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.

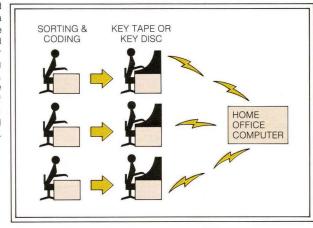
For example, a variety of Auto-Dial Auto-Answer communications adaptors are available to speed data over standard telephone lines. On the software side, the DATAPOLL communications package will automatically dial, receive and transmit data with complete error checking — completely unattended and during the hours when phone rates are the lowest.

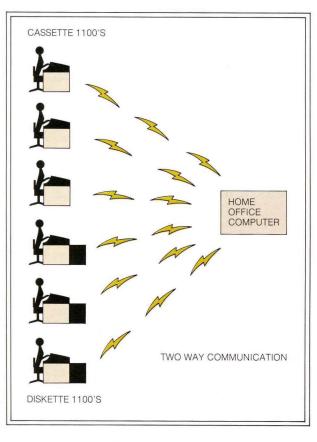
To insure ready compatibility with existing network operations, emulation packages are also available that enable the Datapoint processors to duplicate the transmission codes and line disciplines commonly recognized by "main frame" computers. (For a fuller explanation of Datapoint's communications capabillity, see page 8).

Many companies still handle data generated in field offices in the traditional way. Management information returns the same way. With this approach, information may be many weeks old by the time it gets into the hands of management.



Some companies have converted to key-tape or disc units (with optional data communications capability) for use in the field offices. With this approach, turnaround times may be sharply reduced for management data but the total processing load remains on the central computer, often including tasks which it may not handle economically. The incidence of communication errors may also be high due to the lack of sophisticated communications error-checking.





The most advanced and efficient method of handling data generated in field locations is with Datapoint dispersed processing systems. Standard telephone lines, voice grade, direct distance dial (DDD)

Operating Systems and Programming Languages: A Strong Plus

Datapoint's success in implementing the dispersed data processing concept in user companies is based largely upon the extensive library of operating systems, programming languages and utility programs provided. Programming packages and languages available include:

Operating Systems — DOS and CTOS

DATABUS/1100 -

high-level data entry and processing language

DATAFORM – data entry language

RPG II –
popular business language

BASIC -

interactive processing language

DATAPOLL —

easy to use communications package

ASSEMBLER — for special applications

UTILITY ROUTINES -

to help with data processing tasks

Let's take a closer look at these languages

OPERATING SYSTEMS: With Datapoint computers an operating system forms the foundation of a program generation system and also becomes the master program under which the final applications program will operate. In many cases, application programs will use sections of the operating system for utilities and sub-routines. The operating system also provides the programmer a convenient and efficient means of file control and maintenance and assures compatibility between all data processing files. It also assures easy operator procedures.

Datapoint offers both diskette – and cassette-based operating systems. The critical user will notice that the power of each operating system rivals or surpasses that of many medium sized business computers. It's also important to note that each OS is fundamentally similar in syntax and structure. Because of this sameness, a programmer familiar with one OS has a good knowledge of the others.

DISKETTE OPERATING SYSTEM: The Datapoint Diskette Operating System is a totally dynamic file and interrupt management system. It contains the same architecture as other Datapoint disk operating systems. It is symbolically oriented and designed to completely remove any requirement that the programmer or operator know any disk file information about any data file or program other than its name. The Diskette Operating System also allows an operator to select the program desired simply by typing its name. The program is located, loaded and files selected without further attention.

CASSETTE TAPE OPERATING SYSTEM: The Cassette Tape Operating System is also an interactive program containing many of the features of the Diskette Operating System but is specifically designed for the cassette media. A file structure for cassettes is defined so that programs or multiple data files may be cataloged onto the CTOS tape. Like DOS, CTOS provides not only a powerful program generation tool but also the basis for using those programs without complex procedures.

DATABUS 1100: Many Datapoint systems are used as local, in-house, production computing facilities. Application programs written for these tasks are usually created in a high-level language. (High level meaning that the program instructions approach English-language sentences.) DATABUS 1100 is one of a family of high-level business languages that allow easy generation of efficient data processing programs. This easy-to-use language has gained widespread usage in Datapoint installations.

To make it even more useful for dispersed processing applications, the language contains commands and instructions useful for intelligent data entry. The language makes full use of the virtual memory capability. Databus 1100 also offers simultaneous printing and data entry capability.

DATAFORM: Dataform is a straightforward, forms generating package providing the user with simplified implementation and an uncomplicated change and update capability. Any form can be generated with Dataform simply by having the operator type in the desired headings on the unit's video screen. (See page 10 for more detail on the Dataform language.)

RPG II — RPG II is a high-level business data processing language. It may be used with a cassette or disk based system and creates Datapoint compatible disk files. The language is widely recognized in the data processing industry because of its use with the IBM System/3. Those users acquainted with the IBM RPG II need not learn a new programming language in order to achieve results on Datapoint processors. Those users not familiar with RPG II will quickly discover the ease of program generation with it.

BASIC: The Datapoint *Basic* language is patterned after the standard Dartmouth Basic which was the first version of this comprehensive English statement language and remains one of the most generally used programming languages today. Fully interactive, this English-like language is especially useful for scientific and engineering applications, as a programming instruction tool and for certain types of business applications such as interest, rate-of-return and statistical calculations.

DATAPOLL: Datapoll is designed as an easy-to-use, remote site to central office communications package for automatic "polling" of terminals. The package permits unattended off-shift collection of source data residing on diskettes or on industry-standard magnetic tapes in field office locations for processing at a central computer facility. This package offers great convenience as well as substantial economy for the user.

For more detail on DATAPOLL and Datapoint's Communication capability, turn to page 8.

ASSEMBLY LANGUAGE: For applications requiring complete flexibility or where unusual data or communications techniques must be accommodated, a powerful *Assembly language* package is available.

The Assembler along with its accompanying utilities such as the Editor, listing routines and others provides the programmer a powerful tool for rapid program generation. It runs under any operating system and can be used with a variety of cataloged sub-routines.

UTILITY ROUTINES: A *utility routine* is a program performing a task that generally assists in the operation of a larger system. Utilities may be program-debugging aids, programs that transfer data from one media to another, or groups of useful sub-routines that a system designer might incorporate into a larger program. The following utility routines are available:

Recovery and backup Sort/Index/Reformat Debugging tools Math sub-routines Data transfer/print Program generation

Datapoint Universal File Concept

As all programs run under the Operating Systems, the file formats for the various data storage devices, such as cassette, diskettes, or disk, are determined by the operating system. This means that all data files are compatible. This concept has many advantages in that files created under one programming language can be utilized in a program written in another.

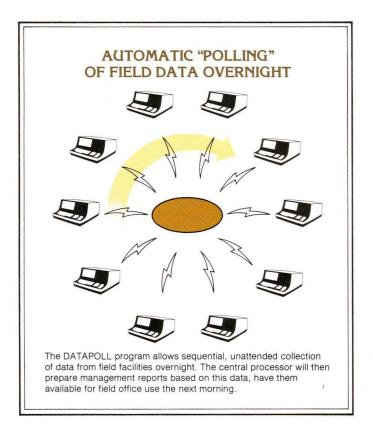
For example, a diskette data file containing employee names and other information may be created using DATAFORM. A program written in DATABUS 1100 can access that file, process the data and print paychecks. The system user may later write a short BASIC program in order to extract useful statistical information. This approach eliminates tedious and error-prone file conversion tasks — and keeps costs to a minimum.

beyond Datapoint Dispersed Processing Systems

DATASHARE: And when the processing and communications work load in your field offices outgrow the capacity of Datapoint's dispersed processors, you can move easily and naturally to a *Datashare* system.

DATASHARE is in essence a highly efficient business time sharing system. Users have the choice of a Datapoint 2200 business processor as CPU, which can serve up to 8 user terminals, or the Datapoint 5500 advanced business processor, which can handle as many as 16 remote terminals simultaneously.

Operators at remote DATASHARE stations have full access to the extended processing and storage capability of the Datapoint processors while utilizing terminal equipment costing only a fraction of their price. They may use their low cost terminals strictly for data entry tasks or, as desired, to direct actual processing of data stored in the processor's memory media. DATASHARE is a complete business processing system for companies on the grow. For more information on the DATASHARE capability, simply write Datapoint, Attention: Marketing Communications for the booklet "The New, Expanded DATASHARE: For Total Data Processing in the Business Environment".



Data Communications:

With more and more companies placing computer power in their field offices, the task of communicating data to other locations becomes even more important. The technical problems of communications confronting the network system planner can often be more complex than the problem of actually processing the data. This makes the availability of proven, error-free and operator-oriented communications packages vitally important to keeping transmission and operation costs to a minimum. Datapoint offers such software.

In cases where the dispersed processors must communicate directly with large computers, Datapoint also makes available proven packages which emulate major manufacturers' communication disciplines.

DATAPOLL

The DATAPOLL package allows the system planner the utmost in flexibility without the need for expensive programming. With this package, the network designer can accommodate all his data transmission needs from field office to headquarters and back again. More formally, it is a user-oriented communications package designed for transmitting and receiving data between Datapoint processors over a dial-up telephone network.

The DATAPOLL package actually consists of a series of specific programs which provide the following capabilities for data transmission:

- 1. Attended or unattended operation
- 2. Automatic or manual operation
- Automatic recovery from all line errors
- "Polling facility" for collection and distribution of data
- Comprehensive error checking to insure that all messages are transmitted and received correctly.
- 6. Use of a variety of media: cassettes, diskettes, disks and reel-to-reel tape.

As these titles indicate, DATAPOLL is both flexible and comprehensive in what it can do for users in superintending data communications. Perhaps its most dramatic facet is its capacity to handle data transmissions unattended. At many Datapoint installations, major economies have resulted from the use of DATAPOLL for "off-shift", unattended polling of field facilities for data collected during the day. These midnight-to-eight operations allow user companies to take advantage of lowest rate telephone charges as well

as avoid the extra expense of wage premiums for off-shift operators. Also, the DATAPOLL package permits the convenience of providing field offices with completely processed data back from the central computer in the form of management reports and summary information at the start of each business day, based on the results of the previous day's business. Another reason why Datapoint dispersed processors are fostering a managerial revolution.

Communicating Directly to Large Computers

In many cases, a Diskette or Cassette 1100 will have to communicate directly with a large computer having an existing communications capability and a communications discipline particular to that type of computer. In such circumstances the flexibility of the Datapoint's internal computer provides two basic advantages in transmitting error-free source data to a large computer.

First, the data structure and line discipline of the Datapoints matches that of the communications network and the needs of the existing large computer. Second, sophisticated error-checking techniques are employed along with the emulation packages to assure that the received data is accurate.

The wide variety of communication interfaces available permit synchronous or asynchronous communications from up to 1200 baud asynchronous to 9600 baud synchronous (or to approximately 900 characters per second). With this array of communications, the 1100s can transmit and receive accordingly in a variety of data disciplines:

These include:

IBM 2780

IBM 3780

IBM 360/HASP work station Teletype Interchange Format

DATAPOLL "MASTER" SCREEN

REMOTE TELEPHONE NUMBERS	STATUS	RESULT
1-572-696-4520	Answered	Transfer complete
1-713-684-1953	Answered	Transfer complete
1-214-661-8046	Answered	Transfer complete
1-404-458-6423	Answered	Transfer complete
1-504-926-3700	Answered	Transfer complete
1-617-890-0440	No Answer Five tries	
1-704-527-3302	Answered	Transfer complete
1-312-298-1240	Answered	Transfer complete
1-513-421-6122	Answered	Transfer complete
1-216-831-0550	Answered	Data transferring

The results of a night's "Data Polling" is displayed on the video screen of a home office terminal.

ORIGINAL SOURCE DOCUMENT (Sample)

UNIVERSAL AUTO WAREHOUSE DATE: 4/4/75 SAN DIEGO, CALIFORNIA **ROUTE SALESMAN ORDER SHEET** ACCOUNT NO. 34560 SHIP TO: ADVANCED AUTO REPAIR 333 PALOS VERDES TORRANCE, CALIF. 90200 BILL T.O: SAME SHIP: MOTOR FRE16HT B0X443 CATALOG NO. QUAN. DESCRIPTION PRICE CLUTCH 75.85 104 BEARINGS 8.35 362 5 FILTERS 6.20 1006 100 SHIP AS AVAILABLE SALESMAN: HARRIS OFFICE: HAWTHORNE

check for zip Range and omission ROUTEMAN SHIP TO: AL omission detection & Ronge check ADDRESS: CITY: TORF STATE: CA Automatic blank CATALOG N 104) Autoright 362 justify & zero fill 1006 000 WARNING: checking of account credit limits SPECIAL IN

Conversion to Julian date_

For Fast, Easy Form Generation

check for minimum order quantity

To make easier the job of preparing a comprehensive data entry system where many data entry formats are needed, a powerful language, DATAFORM, has been designed specifically for either the Diskette or Cassette 1100 data entry user. DATAFORM operates on two levels. First, as an easy-to-use Form Generator; and second, as a high-level Programming Language for validity checks.

The form generator permits fast generation of screen forms with field checking features, as indicated in the illustration above. If more complex checking or data manipulation is needed, DATAFORM's internal powerful high-level language may be used for writing short sub-programs to edit, do arithmetic, check ranges of figures, compare entered data against tables and perform check digit operation. In addition,

Automotic duplication of fields

compare of valid names & look-up ofnumbers

Table look-up 1 = Motor freight Semi-constant field

DATE: 04/04/75/094

ACCOUNT NO. 34560 SALESMAN: HARRIS/344 OFFICE: HAW/24)

ANCED AUTO REPAIR

BILL TO: ADVANCED AUTO REPAIR

B PALOS VERDES

ADDRESS: BOX 443

SHIP VIA:

CITY: TORRANCE

SHIP FROM: SAN DIEGO

ZIP: 90200

ICE

SHIP VIA: 1

STATE: CA

ZIP: 90200

N

SHIP DATE: 5/10/75/129

QUAN. DESCRIPTION PRICE TAX (Y OR N) **AMOUNT** 0001 CLUTCH 75.85 75.85 0005 **BEARINGS** 8.35

FILTERS 1000

41.75

6.20

6200.00

SUMMARY: 003 ITEMS, 002 TAXED AT \$05.88 (5%)

TOTAL: \$6323.48

COUNT CREDIT EXCEEDED! TYPE INITIALS TO AUTHORIZE: TA

RUCTIONS: PARTIAL SHIP AS AVAILABLE

TRANSACTION ACCEPTED: #306

Text information stored on record constant data storage

Accumulation of total events

Complete anthmetic operations. Add, multiply and total accumulation

DATAFORM will automatically perform a read-after-write check to assure the data has been physically written to the cassette or diskette.

The DATABUS 1100 Language also contains a formidable forms generating and error checking capability and is useful where substantial processing or complex validity checks are needed.

For those applications where the system programmer needs absolute flexibility, programs may be written in ASSEMBLY LANGUAGE with a complete library of tested routines available from the Datapoint Software Catalog

With this array of programming language support no user need compromise his data entry application to meet a machine's capability - the 1100 offers complete adaptability to the user's terms and conditions.

In the above illustration, *heading* data for the order entry format is indicated by the bold face type while *source* data, which is entered manually by the operator, is indicated by the italicized type. The difference in type styles is solely for purposes of illustration.

On an actual screen, both heading data and source data appear in the same type style.

BEHIND THE 1100 SCREEN: A CONVENIENT, FLEXIBLE PROCESSING CAPABILITY

Screen forms can be easily & quickly generated. Incoming data can be checked for numeric alpha or mixed fields. Constant or semi-constant fields can be displayed:

for example: account numbus can be automatically checked against an approved list in memory, invalid numbers flagged and valid ones displayed.

the large screen of the 1100 permits complete forms to be displayed saving operator time NAME: GEORGE GREEN
ACCOUNT NO: 34560

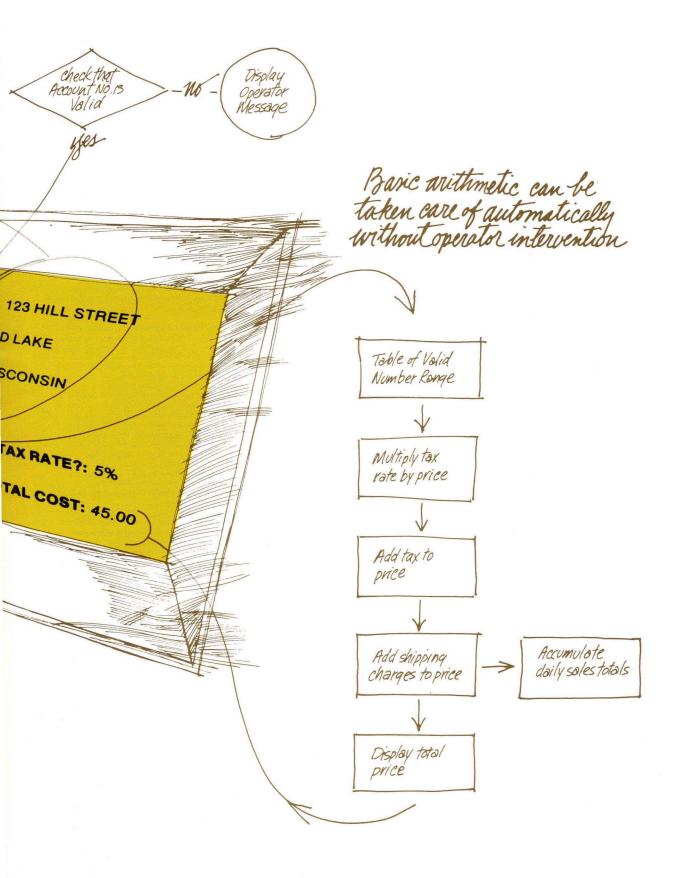
CITY:
STATE

AMOUNT OF PURCHASE?: 40.00

SHIPPING CHARGES: 3.00

Standard typewriter keyboard plus-numeric pad and special function keys

The high level language features allow sophisticated operations to be performed on field data.





The Diskette 1100, shown with attached printer unit.

Let's Be Specific About Datapoint Dispersed Processors

The Datapoint Cassette and Diskette 1100's are computer-based data processing systems. Their main components include a general purpose computer, memory, video display, keyboard and diskette or cassette decks.

Processor:

A powerful, completely programmable general purpose Computer with solid-state memory

50 instructions

14 addressable registers

16 deep pushdown stack

8 bit word length

complete parallel I/O system automatic power-up and power-fail

restart

Memory:

Diskette — 16,384 character memory Cassette - 4,096 or 8,192 character memory

1.6 microsecond access time all memory fully programmable

Keyboard:

Standard typewriter, 41 keys 11 Key Numeric Pad

5 Control Keys

Audio Tones

All-Key rollover

General Specifications:

DISKETTE 1100

Weight: 147 pounds Size: 38" x 48" x 37"

CASSETTE 1100

Weight: 47 lbs.

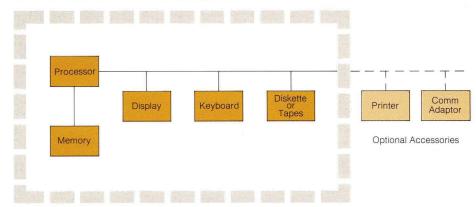
Size: 9%"H x 181/2"W x 19%"D

Power: 115 VAC, 60 or 50 Hz

Environment: 32 to 122 F (0° to 50C)

40 to 90% relative humidity

The Architecture of the Datapoints



Datapoint Peripherals:

Printers:

SERVO PRINTER: An upper and lower case typewriter quality Printer. Speed is 30 character/second with faster speeds achieved using slew and skip techniques. SERIAL PRINTER: 130 lines per minute.

SERIAL PRINTER: 130 lines per minute matrix printer.

BELT PRINTER: 60 or 120 lines per minute upper and lower case, 120 columns wide

LINE PRINTER: 300 Line per minute drum printer (132 columns wide)

MAGNETIC TAPE: 7 or 9 channel, 556, 800 or 1600 BPI Models, IBM compatible.

Communications Interfaces:

- 300 baud full duplex interface with auto dial, auto answer, and optional Datapoint modem
- 1200 baud half duplex interface with auto dial, auto answer, and optional Datapoint modem
- Synchronous data interface compatible with binary synchronous discipline, connects to Bell 201 Dataset or equivalent Datasets to over 9600 Baud.

Video Display:

7x3.5" viewing Area 80 Columns by 12 rows, 960 characters

Upper and lower case (94 ASCII characters)

The Diskette 1100 contains a high-speed display (50,000 CPS) which is programmable. Up to 128 characters may be defined and displayed.

5x7 dot matrix for high readability Glare free

Diskettes:

Up to four drives per Diskette 1100 256,000 characters/diskette 70 milliseconds average access time Automatic error checking IBM Diskette compatible (under transfer program)

Completely processor controlled

Cassettes Tapes:

Standard Phillips Cassettes
7.5 inches per second speed
Rewind, search forward and reverse
mode

Approximately 120,000 characters storage per tape side Completely processor controlled

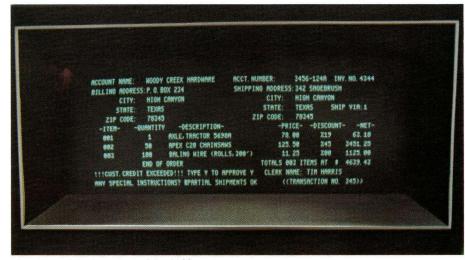
A Compatible Family of Products

For users with expanding work loads, Datapoint makes available an upward compatible family of business computers.

- Diskette 1100 Dispersed Processor
- Cassette 1100 Dispersed Processor
- Datapoint 2200 Business Processor
- Datapoint 5500 Advanced Business Processor

Internal Architecture

The internal architecture of Datapoint Dispersed Processing Systems is basically the same as that of a large computer system. The central processor has command over all internal peripherals — video display, keyboard, diskette or cassette tapes of these two systems — and also controls external peripherals such as printers, reel-to-reel tapes, disks, and communication devices. In basic computer power these processors rival that of many medium-scale conventional business computers, yet their size, appearance and cost make them particularly suitable for standard office use.



Easy-to-read display screen of the 1100.



Service is our Middle Name

Datapoint recognizes the extreme importance to the business man of having equipment ready to go, ready to produce when he's ready to do business. We offer our own fully staffed highly professional Customer Service Force, under the direction of the Customer Service Center in San Antonio, which is on alert 24 hours a day, seven days a week to meet your service requirements on Datapoint equipment, wherever and whenever. The toll free phone number for Datapoint national service is (800) 531-5770 (in Texas call (800) 292-5858.)

System Expandability

The dispersed processor user need not fear an application outgrowing his systems' capabilities. If additional data input locations are required, the 1100 user can be upgraded to a Datapoint 2200- or 5500-Based DATASHARE system. Programs written in Databus 1100, for instance, are fully compatible with DATASHARE. DATASHARE offers up to 16 simultaneous and separate data entry stations for a total business data processing capability. It is based upon use of low-cost terminals such as Datapoint 3600's or other units at remote stations for capturing and moving data to a central processing unit.

If in this configuration even more on-site capability is needed, the 2200 or 5500 will accommodate a wide variety of discs, printers, magnetic tapes, and other data processing support units. In each phase, as the system grows, the user will find Datapoint software and hardware keeping even, economic pace with his requirements.

Applications

Business data processing applications that can be readily handled by Datapoint dispersed processing systems include:

Sales Order entry Invoice preparation Accounts payable Back order handling General ledger accounting Inventory reports Account status Order Status Bill of Material Sales forecasting Pavroll Order entry Waybill generation Bill of lading Consist reporting Demurrage reporting Administrative messages Policy applications Remote invoicing Claims reporting Check writing Patient billing Policy generation Account status Claims handling and many, many others

A LOOK AT A TYPICAL DISPERSED PROCESSING APPLICATION.

SOURCE DOCUMENTS INTELLIGENT DATA ENTRY LOCAL MASS STORAGE HOME OFFICE CENTRAL PROCESSOR: MASTER FILE UPDATE, SUMMARY REPORTS ETC.

Home Office:

9725 Datapoint Drive San Antonio, Texas 78284 (512) 690-7151

Sales Office:

Atlanta/(404) 458-6423 Boston/(617) 890-0440 Chicago/(312) 298-1240 Cincinnati/(513) 481-2600 Cleveland/(216) 831-0550 Dallas/(214) 661-5536 Denver/(303) 770-3921 Des Moines/(515) 225-9070 Detroit/(313) 478-6070 Greensboro/(919) 299-8401 Hartford/(203) 677-4551 Houston/(713) 688-5791 Kansas City/(913) 321-5802 Los Angeles/(213) 645-5400 Milwaukee/(414) 453-1425 Minneapolis/(612) 854-4054 New Orleans/(504) 522-5457 New York/(212) 736-3710 Orlando/(305) 896-1940 Philadelphia/(215) 667-9477 Phoenix/(602) 265-3909 Pittsburgh/(412) 931-3663 Portland/(503) 223-2411 San Diego/(714) 460-2020 San Francisco/(415) 398-2888 Seattle/(206) 455-2044 Stamford/(203) 359-4175 St. Louis/(314) 878-6595 Tulsa/(918) 664-2295 Union, N.J./(201) 964-8761 Washington, D.C./(703) 790-0555

International:

TRW-DATACOM-International Los Angeles, California TELEX 691286 (213) 475-6777 Sydney, Australia/(2) 922-3100 Vienna, Austria/0222/36 21 41 Brussels/3762030 Rio de Janeiro, Brazil/222-4611 Toronto/(416) 438-9800 Copenhagen/(02) 96-53-66 Guayaquil, Ecuador/394844 London/(1) 903-6261 Helsinki/90-661 991 Paris/(1) 657-13-31 Hannover, Germany/(0511) 634-011 Rotterdam/(10) 216244 Hong Kong/(5) 243-121 Tel Aviv, Israel/(03) 410565 Milan/316 333 Tokyo/264 6131 Beirut/348 340/1/2 Oslo/153490 Makati Rizal, The Philippines/877294 Singapore/911788 Johannesburg/724 9301 Madrid, Spain/261 7601 Stockholm/(8) 188295 Lyss Berne, Switzerland/(32) 844240 Taipei, Taiwan/(361) 768-1114

DATAPOINT CORPORATION

