

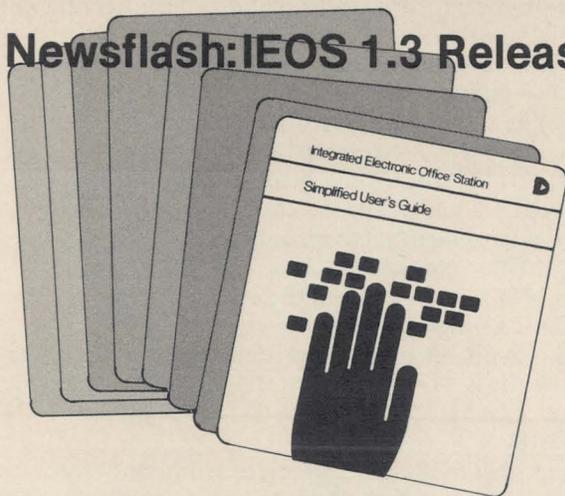
# SOURCE DATA

THE DATAPoint SYSTEMS NEWSLETTER

No. 13

June/July 1981

## Newsflash: IEOS 1.3 Released



The latest version of the Integrated Electronic Office™ Word Processing software has been released. Version 1.3 is now available for you to order through normal channels with your local office. A description of some of the major enhancements was included in the last issue of SOURCE DATA (Issue 12) and we will be writing more articles on specific topics in future issues. The release includes a brand new IEOS Simplified User's Guide so be sure to take advantage of the documentation to learn about new features.

## EMS™ for Data Collection and Distribution

EMS (Electronic Message Services) is a component of Datapoint's Integrated Electronic Office that allows you to electronically collect, route and deliver messages. The EMS system can be used for messages prepared with word processing but also lets you transmit or deliver message data in standard DOS text file format. An application such as COBOL or RPG can enter data/message traffic to the EMS network for local delivery. You may execute any of the following transmission format/reception combinations: DOS text file to DOS text file, IEOS WP to DOS text file, or DOS text file to IEOS WP.

The DOS text file interface consists of two files: OUTBOX/MSG and INBOX/MSG. Each is 32 records long and contains asterisks as the first 8 characters.

The initial step in transferring DOS text files occurs when the Network Controller mounts the volume containing the DOS text files. The Network Controller then searches for file names contained in the disk file named OUTBOX/MSG. After identifying the files, the Network Controller adds an extension of "/OUT" to each one.

If the header data included in the "/OUT" file is valid, the Network Controller accepts responsibility for message delivery and changes the extension to "/ACC". In the case of an invalid header, the extension changes to "/REJ", and the Network Controller rejects the message (thus preventing delivery). The files are then converted to IEOS format and queued for future delivery. A message file "ends" when the Network Controller detects a DOS end of file or range trap.

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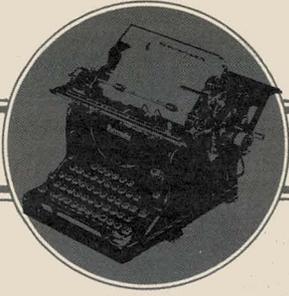
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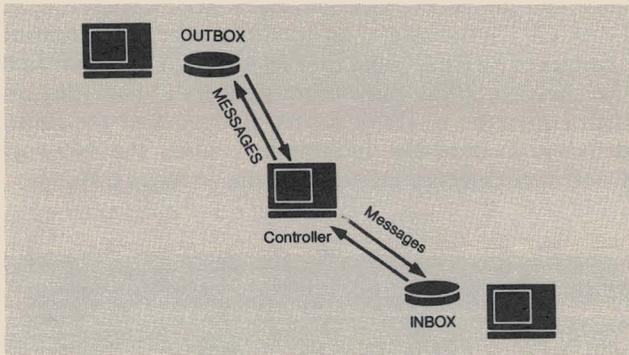


## OFFICE APPLICATIONS

### *EMS continued*

The Network Controller analyzes a mailstop selected for output to determine if it uses a DOS text file format. If so, the message data is converted from IEOS format and delivered onto the output volumes in freestanding files with the "/IN" extension. The Network Controller then locates the file INBOX/MSG. The file name of the delivered message (Mddnnnnn, where dd represents the day of the month, nnnnn a sequential number) is placed in the first record of INBOX/MSG that contains eight asterisks (\*\*\*\*\*).

After message delivery, the destination process removes delivered message file names from the INBOX/MSG file after they have been processed. Eight asterisks should replace file names removed from INBOX/MSG.



The characteristics of a standard DOS text file are as follow:

- Each physical record is a logical disk sector containing 256 characters.
- The first three and last two characters are reserved:
  - Byte 0 = physical file number
  - Bytes 1 and 2 = logical record number
  - Bytes 376 and 377 = reserved.
- The following control characters are used:
  - 000 (NUL) = end of file indicator
  - 003 (EM) = end of medium indicator
  - 011 (CMP) = compressed data
  - 015 (ENT) = end of logical record
  - 032 (DEL) = deleted data

If the mailstop selected for delivery uses IEOS format, the file is written into a stand-alone file, and when the user goes into STANDBY the file is placed in INBOX/LIB.

When the files are converted from one form to another, they retain the line and word structures that existed before conversion. However, conversion causes loss of such special functions as underlining and boldfacing. Additionally, some punctuation characters are converted as a result of file transmission (e.g., a backslash changes to a question mark).

You may obtain additional information from the Disk Operating System User's Guide (Document No. 50432).

SOURCE DATA is a bimonthly educational publication for customers of Datapoint.

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Dated Material: Techniques or facilities described in each issue are accurate as of the publication date; however, computing changes rapidly so please rely on up-to-date permanent documentation such as user's guides for details of software or equipment features.

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*IEOS users who get version 1.3 on diskette please note:*

On the utility diskette, there is a file, IEOSSTART/PRT. That is an installation guide for 1.3 so be sure to print that out right away.

## Support for IEOS: People to Know



An MSS is a Marketing Support Specialist (generally reporting to a region) and an MSR is a Marketing Support Representative (generally reporting to a branch). Their duties are to support you, the customer, specifically in the IEOS product area. They are your main contact if you should have any questions or problems concerning IEOS.

If you are unable to contact them, the toll free number (800-531-7131) is still available to you. But, we encourage you to contact your local MSS or MSR first as the best resource. Following is a list of names, addresses and phone numbers of MSSs and MSRs by region. Please become familiar with these personnel, they are there to help you.

Martha Motta  
Susan Osborne  
11061 NE 2nd, Suite 110  
Bellevue, WA 98004  
(206) 455-2044

Beverly Sacerdoti  
1 Maritime Plaza, Suite 720  
San Francisco, CA 94111  
(415) 398-2888

Joan Jewell  
7700 Edgewater Drive, Suite 520  
Oakland, CA 94621  
(415) 562-5612

Julia Case  
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San Mateo, CA 94403  
(415) 572-1360

Debbie Scott  
2415 Campus Drive, Suite 150  
Irvine, CA 92715  
(714) 752-9073

Susan Hellman  
3660 Wilshire Blvd., Suite 500  
Los Angeles, CA 90010  
(213) 385-0395

Carolyn Travis  
14110 Dallas North Pkwy, Suite 300  
Dallas, TX 75240  
(214) 661-3895

Cindy Moos  
10700 Northwest Fwy, Suite 200  
Houston, TX 77092  
(713) 680-8800

Sandra Burchardt  
2200 Century Pkwy, Suite 470  
Atlanta, GA 30345  
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Chicago, IL 60606  
(312) 977-1470

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Diane Gardner  
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6 New England Executive Park  
Birlington, MA 01803  
(617) 273-5030

Jessyca Tassinello  
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Maywood, NJ 07607  
(201) 368-0070

Diane Hanagan  
Vicki Sullivan  
1700 North Moore St., Suite 2300  
Arlington, VA 22209  
(703) 841-7600



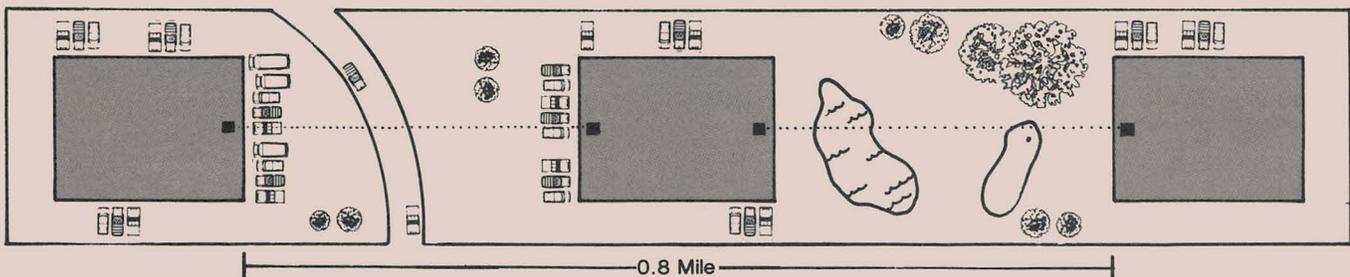
## OFFICE COMMUNICATIONS

### LightLink Installation Expands

Marketing Systems Data Division (Order Management) has added its second LightLink transmission connection. The first installation (described in SOURCE DATA Issue 12) provided an ARC "cable" extension between Datapoint's order entry/manufacturing resource planning groups and the order management group. The personnel in these groups are located in facilities approximately 0.8 mile apart. A golf course spans the middle portion of this path. International Operations Division (IOD) required access to the same data base. They are located in a building just outside the golf course about halfway between the other sites. This situation provided an ideal application for a LightLink system.

Without disturbing the current service, a second pair of LightLink transceivers was installed for the IOD facility. The original installation was realigned to form two links; one from order management to IOD, the other from IOD to order entry/manufacturing planning. Now all three sites are connected via a common ARC bus.

The ability to quickly reconfigure a distributed ARC between buildings is one of LightLink's more powerful features. This application allowed these important activities to communicate with the database without delay and to add an entirely new function without any disruption of service.



### LightLink: Optical Transmission Extends ARC Networks

The LightLink Optical Data Link provides a reliable method to quickly reposition and expand your ARC local network. Use of noncoherent, low-level light as the transmission medium eliminates the need for registration or licensing of any kind. Simply position the units and your ARC network is extended.

LightLink advantages are the following:

**Distance** - allows ARC bus connections between facilities up to one mile apart.

**Data** - provides full ARC interprocessor bus data rate (2.5MBS). No need for communication adapters and slow modems for telephone line transfer. Uses a data encoding technique to ensure data transactions. Synchronous data transmission with accurate digital phase-lock-loop recovery ensures the data's integrity.

**License** - no FCC radio type license is needed.

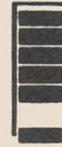
**Safety** - radiated power is harmless, near infra-red ("heat rays") of only four thousandths of one watt. (Almost two thousand units together would be equivalent to the power required to light one Christmas tree lamp.)

**Reliability** - Self-contained diagnostics and receive level trends provide information long before operation is degraded. Firmware controls linear activation of focal position to retain the transmission/detector at the optimum focus point. Temperature is monitored both internally (at the lens) and externally to detect dew point conditions. The firmware automatically activates the space heater to maintain a dry lens chamber.

**Noise** - LightLink light beams are not susceptible to interference from any high-frequency radio noise. A matched optical filter in the receive path provides attenuation for all light outside of the transmit "window". That greatly improves the daytime signal-to-noise ratio.

**Installation** - Transmitter is factory aligned to the receiver. The telescopes that are included enable service technicians to quickly align the system (just aim and check readouts).

# INFOSWITCH/SHARE Enhanced



Two new versions of INFOSWITCH/SHARE software are available: 4.2 and 5.1. Many enhancements are common to both versions. Upgrade to SHARE 4.2 will be available only to those customers currently operating with SHARE 4.1.x. A \$500 system support charge applies. Upgrade to SHARE 5.1, available to any existing INFOSWITCH user, requires an ISS (Intelligent Switching Subsystem) hardware change at \$2,000 in addition to the \$500 system support charge.

Features and enhancements described below are applicable to both SHARE 4.2 and SHARE 5.1.

## INTEGRATED BILLING STATEMENT

With SHARE and IBS on a common ARC system, an interface passes long distance and/or local charges from SHARE to IBS during the post accounting function allowing IBS to prepare a comprehensive monthly statement of charges for each department in a corporation.

## TELEPHONE DIRECTORY PACKAGE™

With SHARE and TDP on a common ARC system, an interface generates SHARE caller identity, subgroup, and group database files from TDP data.

## SUBGROUP AND GROUP FILE

An 8-digit Department Code field has been added to the subgroup file to accommodate IBS and TDP data. The subgroup sequence number field has been expanded from three digits to four. An 8-digit Division Code field has been added to the group file to accommodate IBS and TDP data.

## RAPID CALLER IDENTITY LOOKUP

The Revise Caller and Print Accounting commands with the ALL modifier only display or print those caller identities that are defined.

## ACCOUNTING

The Merge Accounting and Repair Accounting commands are less likely to produce duplicate accounting records when recovering from an aborted Merge Accounting routine.

## CONFIGURATION COMMANDS

All parameters in the Configuration file except site configuration (LDCS™, SMDR, NONE) can be modified without deactivating calling. A new prompt is issued asking for the operator assisted (010) international call routing table number.

## MOUNT FEATURES

Two new commands, Mount Drive and Demount Drive, allow you to mount or demount any volume except the SHARE organizational drive. The Demount command requires an authorization code.

## DISPLAY HOLDING COMMAND

Allows the user to display callers in standby hold and callback queue.

## PRINT SPOOLING

Available only to those users running in an ARC environment, two types of print spooling are available: SYSTEM WIDE - Spooling will take all output (monitor, error, and status messages) normally destined for the local printer and place it in a system print file.

BY COMMAND - Routine print commands that normally print to the local printer can be placed in a command print file separate from the system print file mentioned above.

## FORMAT REPORT

- User-defined insertion of decimal points and dollar signs in numeric fields.
- Column subtotals, grand totals or both.
- Inter-column arithmetic: addition, subtraction, multiplication, or division.
- Report most frequently occurring value within a specified field within a file.
- Count occurrences for individual values within a specified field (in a presorted file).
- Backup to a previous prompt by pressing the left arrow key.
- Handle records up to 256 characters long.

## DEFINE SELECTION

Call record types U, V, W, and X and speed numbers in the range 240 - 1099 can be monitored.

## DISPLAY, PRINT, DELETE FILE

Display File and Print File allow listing the file name/extension and physical file number (PFN) of all files on a drive. Subdirectory and file protection are also indicated. You may also list the space allocated (number of sectors) for each file. Delete File allows you to delete files with the use of an authorization code.

## RUN DOS OR LOAD DOS

Use either command to reload DOS.

## REVISE CALLER

SAME option allows you to revise multiple callers with common attributes.

## READ AND WRITE CASSETTE

Reading and writing to cassette while SHARE is running.

## SPEED NUMBERS

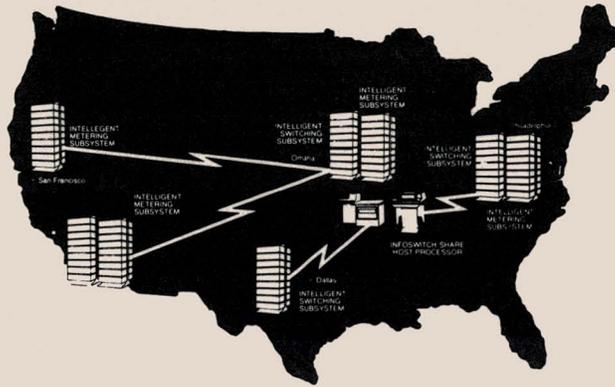
Range validation of speed numbers.

## INFORMATION CALLS

Routing of information exchange calls (555) through the exchange code table.

## WARNING MESSAGE

A warning message is printed along with the warning beep when accounting is forced to deactivate.



### INDEX CALLER

Index Caller command allows the use of a default caller ID whenever the caller ID file is being indexed.

### TEST LINE

A "test completed" message is generated whenever a Test Line command completes successfully

### PRINT ACCOUNTING

International calls will be reported as 011 or 010 whenever Print Accounting is performed.

Features and enhancements described below are unique to SHARE 5.1.

### LOADABLE STORE

The SHARE micro (ISS) contains a loadable store RAM (Random Access Memory) for storage of the call processing program instead of the currently used PROM (Programmed Read-Only Memory) storage. In the event of a power outage or routine shut down, the ISS reloads itself using a cartridge tape loader built into the micro. Should reloading from the cartridge tape fail, the ISS requests a reload from the host. The SHARE host then performs a sequence that reloads the information automatically.

### REMOTE ACCESS OPERATOR INTERVENTION

Remote access calls (from rotary dial phones or push button phones not equipped with a polarity guard), can be automatically routed to a user-defined number (typically the company operator) after a set period of time. This permits the calling party to use the LDCS for placing long distance calls regardless of the type of phone being used.

### BREAKING DIAL TONE - REMOTE ACCESS CALLS

On occasion, remote access calls cannot "break" dial tone. If this occurs, the ISS will remove "dial tone"

from the line if no digits have been detected in the first 5 seconds. If after an additional 5 seconds, no digits are detected, the ISS can either generate a "reorder tone" or connect the caller to the company operator.

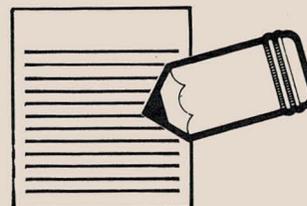
### OTHER COMMON CARRIER ACCESS

This feature allows access to Special Service Common Carrier (SSCC) networks through the LDCS. Typically, the Other Common Carrier (OCC) provides the customer with a local telephone number and account code for access to the private network. Under SHARE, the user inputs the SHARE caller ID and desired long distance number. Then, the LDCS connects the call to the proper output line and out-dials the local telephone number and access code automatically.

**DISCLAIMER:** Presently, the ability to recognize signaling from the Special Service Common Carrier (SSCC) is not supported within the Other Common Carrier (OCC) access feature of SHARE 5.1. Due to the current limitation, Datapoint will not guarantee that all calls placed to an SSCC using the OCC access feature will be connected for completion to the destination telephone number. Additionally, the OCC access feature will not facilitate the use of United States Transmission Service (USTS) as supplied by ITT. This is due to the process used by USTS for inputting the user's authorization code.

For more information, contact your local Datapoint Marketing office or call Product Marketing in San Antonio at (512)699-5191.

*PLEASE be sure we have your correct address. Send corrections on the READER REPLY FORM at the back of this issue*



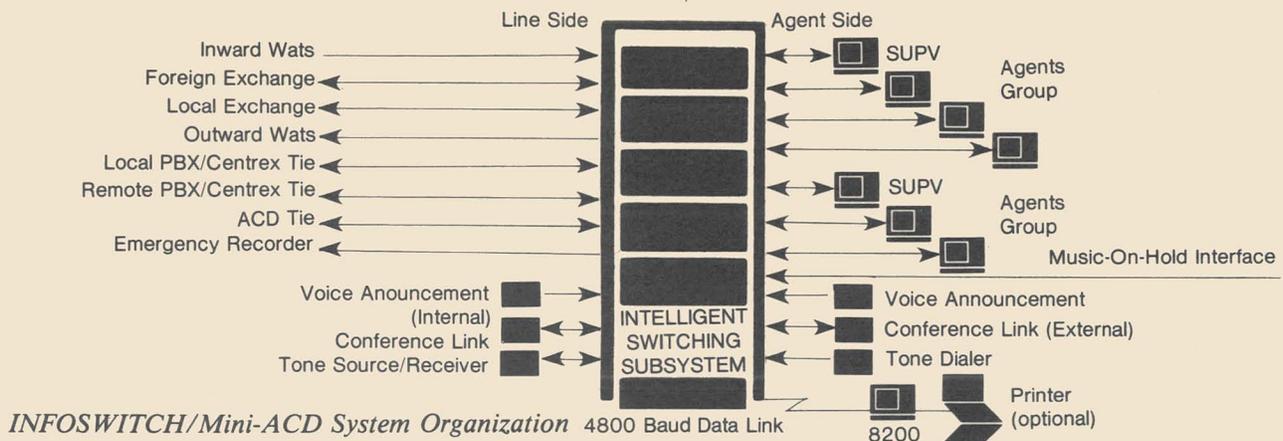
# INFOSWITCH/Mini-ACD

The INFOSWITCH/Mini-ACD is a new offering in the Datapoint family of telecommunications products. Like the larger, full-featured Automatic Call Distributor, the Mini-ACD provides effective and inexpensive solutions to the user's call distribution problems:

- Efficient and equitable distribution of incoming telephone calls to agents
- Detailed management reports of both line and position activity
- Line diagnostic and troubleshooting capability
- User-definable system and facility reconfiguration
- Increased productivity of telephone lines and agent resources

## Mini-ACD Components

The Mini-ACD is a complete turn-key system, requiring no user programming. Each system includes a Datapoint 8200 video workstation with typewriter-like keyboard, agent telephone instruments, and intelligent switching subsystem for automatic distribution of calls. An optional, high-speed local printer is available for the generation of management reports. The agent telephone instrument, identical to that used with the full featured INFOSWITCH/ACD, is designed to provide the individual agent with a simple, yet powerful terminal for accepting, placing, or redirecting a high volume of telephone calls.



## Real-Time Traffic Analysis, Management Reports

The Mini-ACD supplies a comprehensive set of reports that describes telephone line use, call traffic conditions, and telephone activity at agent or agent group positions. The video display provides this information as it actually occurs, and a printer can be used to generate daily records of agent performance and line use reports.

## Flexible, User-Defined Telephone Usage

A wide variety of telephone lines -- local service lines, inward WATS, one-way inward or two-way Foreign Exchange (FX) lines, one-way or two-way tie lines to the client PBX or Centrex, etc. -- may be used in any configurable mix with the Mini-ACD. Each individual line may be used exclusively for incoming calls, outgoing calls, or alternate inbound and outbound traffic. Incoming calls are directed to any one of up to 28 agents who may be assigned to any one of up to 8 groups.

Mini-ACD sizes range from as few as 4 to as many as 28 telephone lines and from 4 to 28 agent positions. When additional agent positions or telephone line configurations are required at a single site, up to 4 Mini-ACDs can be connected by means of two-way intermachine tie lines. Also, expansion to the larger full featured INFOSWITCH/ACD is easily accomplished with the addition of a host subsystem, disk storage and software to handle the additional agent positions and telephone lines.

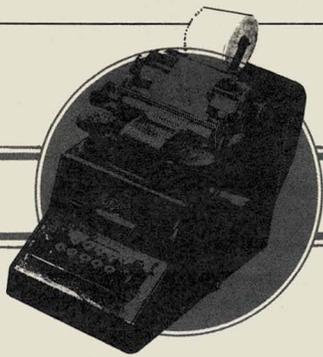
## Multi-Function Agent Telephone Instruments

An essential component of the Mini-ACD is the agent telephone instrument. This modern, multifunction unit incorporates a standard tone dial pad and function key cluster with backlit status indicators, and can be equipped with a lightweight headset or coiled-cord handset device. Selective illumination of backlit English phrases on the telephone instrument indicate to the agent the current status of the call in progress and whether or not any calls are being held in queue.

Although most calls coming into the call distributor require little manual intervention on the part of the agent, the telephone instrument allows the agent to easily perform those call processing operations that are necessary. For instance, an agent may alert the supervisor to a crank or threatening call simply by pressing an "emergency" key on the unit. Other of the sixteen function keys on the agent set can be used to signal the supervisor for assistance in monitoring or processing a call, transferring a call, or initiating a three-way call.

## Availability

The Mini-ACD is available in eight basic configurations, all of which incorporate the intelligent switching unit, an 8200 video terminal, and a variable number of telephone lines and agent telephone instruments. For more information, contact your local Datapoint Marketing office or call Product Marketing in San Antonio at (512) 699-5191.



## DATA PROCESSING

### Important New Features Released in RMS 1.3

RMS 1.3 has been released marking a milestone in the development of the Resource Management System™. The main items of interest are support for standalone 8800 systems, 6600 data communications, and the Batch Job Facility (BJF).

With the new 8800 nucleus you can run the RMS languages and utilities on standalone 8800 systems and enjoy the advantages of large memory and multiprocessor architecture.

RMS data communications for 6600 systems opens up a whole new realm of possibilities for 6600 users. The new release enables users to run RMS DATAPOLL for communications with other Datapoint systems and HASP, 2780, and 3780 emulation for communications with IBM (and IBM-compatible) machines. The RMS data communications software can be ordered as Model Code 9829; this one Model Code covers the entire group of communications programs. The various pieces cannot be ordered separately --- just order 9829 and use the ones you need. Model Code 50542 (\$27.50) is the complete package of all the communications User's Guides. The User's Guides are also available separately. Here's a list of them, in case you want to order specific manuals:

Title	Document No.	Price
RMS Communications Installation and Configuration	50623	\$4.00
COMMFAC (Communications Facility)	50552	2.50
UCF (User Communications Facility)	50548	4.00
COMMFAC, UCF, and HASP	50544	10.50
COMMFAC, UCF, and 2780/3780	50546	10.50
DATAPOLL	50551	4.00
HASP	50550	4.00
2780/3780	50549	4.00

The first three documents apply to all the RMS communications software; the next two are sets for HASP and 2780/3780, and the last three document specific protocols. The Model Codes have been assigned so that you can "mix and match" to suit your own requirements.

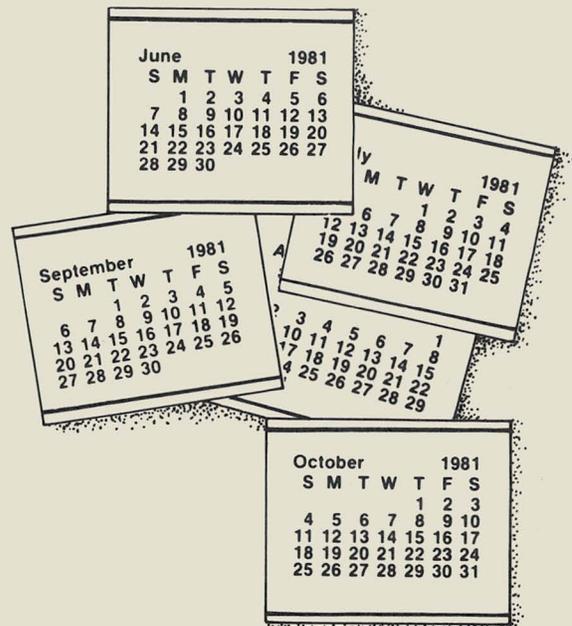
An important element of the RMS 1.3 release is the Batch Job Facility (BJF). It is a powerful tool for increasing the total amount of work possible within a given system. BJF takes full advantage of RMS resource sharing to handle print unspooling and CHAIN file execution in a highly intelligent and efficient manner. BJF exists as a program in a processor. It behaves as a central controller to which users submit requests for jobs to be run and for files to be printed out. The BJF program knows which resources are available at any given time and continually watches for an opportunity

to run a user-requested CHAIN file, or to print reports. When the opportunity arises, BJF engages the necessary resources and runs the CHAIN, or prints the file. The constant vigilance of the BJF system optimizes the use of all machine resources, and, as a result, increases human productivity as well.

BJF can function as a system manager. Running unattended, and in accordance with user-assigned priorities, it will use the processors and peripherals made available to it to run the requested jobs with full cognizance of inter-job dependencies, complete logging of job traffic, and a sophisticated system restart capability which ensures the integrity and status of all requests within the system.

This is the third successful, on schedule release for RMS. The next few months will see four more releases completing Version 1. A few of the highlights:

- 1.4 (June) ARC support for the 8800 STARTUP utility
- 1.5 (July) Demonstratable IEOS  
SNAP  
Tabbed I/O
- 1.6 (September) BACKUP  
DCTAPE  
EDIT...user-defined functions  
Charload/Charedit
- 1.7 (October) 8800 Communications  
COBOL...large program support  
RPG  
ARCCOM  
AIM access from DATABUS®/DATASHARE®



## An RMS Success Story

Let's face it, everybody started off a bit apprehensive about RMS and the 8800, because the products were new. The basic conservatism of data processing personnel is well-known and derives from the profound responsibility they have to their employers. In many business environments, if the computer doesn't work, business halts, or slows down intolerably. Money is lost, sometimes at a prodigious rate. Consequently, even when new computer products look really good and clearly offer viable solutions to the problems at hand, the experienced data processing decision-maker is likely to take a cautious approach and wait for the new products to prove themselves in real life. Such has been the case with Datapoint's RMS and 8800.

However, we are now able to begin reporting cases in which the new products have been subjected to the acid-test of real life and have earned genuine customer satisfaction.

The account is an established Datapoint user, who, prior to being a Beta test site for RMS, used a 4630 (6600 processor with 10/10 Megabyte disks) to run DATASHARE applications on three terminals. This Datapoint DOS system was well liked by the personnel who used it and was considered cost-effective.

The problem which forced management to consider replacing the system was the maximum file size available under DOS. While the system was still comparatively young, the amount of data increased so much that even the largest file was not big enough. There existed the

possibility of changing the applications programs so that they could deal with multiple files; however, this was considered unattractive because it required investment of considerable programming resources in a solution with a fairly short lifespan. What they really wanted to invest in was a solution that would handle their growth needs for years to come.

The large file support provided by RMS offered the solution. (Under RMS, a single file can be as large as an entire volume, so, by moving to the 9390 (MIDS) disks, a single file can be as large as 67 million bytes, six times the size available under DOS.) The price of the large file support was, however, conversion to a new operating system which was then available only on a Beta-test basis. You can imagine the dilemma: would you have been willing to take the chance, given that the system was a live system, depended upon for production work?

After suitable deliberation the decision was made to undertake conversion. Datapoint personnel came to the site and assisted. There were a large number of DATABUS programs (approximately a hundred) but, fortunately, they were, in general, straightforward and free of the things that make conversion difficult (ACALLs, MULTILINK™, etc.). Some programs did use tabbing in their disk I/O statements, so they had to be modified to perform the complete-record READs and WRITEs supported by RMS. A conversion-plan was created and the work began in earnest. The equipment was upgraded to a 4750 system (a 6600 with 256K and MIDS disks to hold the large data files). In about two weeks, the programs were converted and testing had begun. This account invested the time to do the job right and conducted thorough parallel testing, running the same data through the DOS system and then through the RMS system, carefully comparing the results, both for normal-case and exception-case processing.

The task was a success. Not only was the large file support put into production use but also an appreciable improvement in performance was obtained and two more terminals added. In the end, the customer was pleased with his improved system.

We offer this story to illustrate that the pioneering of RMS is well underway. With the release of RMS 1.3 (see article in this issue), we offer a product which is no longer in its infancy. The experience of this customer and others justifies the years of preparation and vast investment of development resources that were required to reach this point. Datapoint's investment has begun to pay off; RMS is earning customer satisfaction.



## Multitasking on the 8800 with RMS

Multitasking is an aspect of the 8800 processor with the Resource Management System that deserves special attention because of its benefits to your computing flexibility and productivity. As we got down to the basics of multiprocessing in the article in Issue 12, so this article will expand on the meaning of the term "multitasking".

Very simply stated, multitasking means you can run multiple concurrent programs in one machine. You, the user, can communicate with your program in RMS via a low-cost 8200 workstation connected either locally (hardwired to the processor) or remotely (through a telephone line). The workstation allows you to perform any function, any program. Its function is not limited, hence the term multifunction. So, using these versatile workstations, various users may be asking an 8800 under RMS to execute a COBOL program, an RMS utility, communications, or any number of other functions or programs.

Look at how the 8800 with RMS handles those requests. First, think of the particular amount of memory that has been configured in the 8800. The RMS nucleus (the operating system for the operating system) always occupies a certain portion of that memory and is thus called resident. Depending on your installation, that resident portion will occupy a fixed 28 to 40K bytes of memory. No other memory is occupied by resident programs; all the rest of memory is dynamically allocated to user demands. (One exception is DATASHARE which is discussed later.)

When you sign on to RMS, you are immediately allocated 4K bytes of memory that act as a Program Communication Region (PCR). As soon as you present a task to RMS, enough memory is allocated to accomplish the task. The memory need not be contiguous (i.e., if 16K is needed, it could be met by two separate segments of 12K and 4K, or other combinations). As soon as the task is completed, the memory is released back to RMS. As long as you are logged on, you retain the 4K PCR; any memory allocated to the task or program by RMS is in addition to that.

So, every workstation that logs in is allocated the 4K PCR then is given memory as required by its program, whether it is for a COBOL compile, an executing program, an RMS utility, a DATABUS program, etc. Another term relating to memory is granule or granularity. That arises from the fact that memory allocation is done in 4K increments and each increment

is one granule. If RMS cannot find sufficient memory for your program, it will display a message to that effect. Should there not be sufficient memory (i.e., the minimum 4K for the PCR) for a user to log on, then RMS will not return its "ready" message.

Up to now, we've been talking about workstations and the concept of multitasking as it applies to individual distinct programs. Now, let's address DATASHARE use on the RMS/8800 system. When RMS is configured, DATASHARE is given a fixed memory allocation so it is shared by all users wishing to access it. The term used to describe 8200s (or 3600s) using DATASHARE is Datastation. Unlike workstations which are versatile and multifunctional, Datastations are dedicated to DATASHARE use. They are specifically for timesharing programs in the DATABUS language. The economy of this shared DATASHARE is realized by multiple users using one partition of memory rather than each user accessing his or her own copy. The amount of memory fixed for DATASHARE depends on the particular configuration.

Any mix of workstations (performing various functions) and datastations (working in DATASHARE) can be set up on a given RMS/8800. All the comments in this article apply to RMS/6600 as well as to 8800 but of course you must consider the vastly greater memory capability of the 8800 over the 6600.

An important facet of multitasking is the intertask communication possible through an RMS feature called a pipe. Users can define pipes within their programs to talk to and listen to other programs. Very simply speaking, a pipe is a buffer area, a sequential file within your program area, and is given a symbolic name so you can read from it, write into it, create it, delete it, put security on it, etc. You usually create a pipe to talk and a pipe to listen for each communicating task so full-duplex communication is enabled. The beauty of it is that RMS takes care of actually passing the data from pipe to pipe. You determine the size you need your pipes to be dependent on your need for space versus I/O capability.

For more on RMS, see the other articles in this issue. In a future article, we hope to explore the configurations of the 8800 and which are appropriate for various installations.

# FORTRAN for 5500 and Some Benchmarks

In January, FORTRAN was announced for the 1550 processor family. Now, FORT55 is available on all processors with the 5500 instruction set. Both FORTRANs run under DOS.

As is true for 1500 FORTRAN, FORT55 includes American National Standard FORTRAN (1966) with a number of language extensions. The primary restriction is that neither FORTRAN supports the complex data type. Enhancements include logical variables, octal constants, logical operations, mixed-mode arithmetic, and literal and Hollerith handling.

FORTRAN is used extensively in scientific, technical, and engineering applications and thus is a significant addition to languages for these processors.

FORT55 may be used on 1170, 1800, 3800, 5500, 6000, and 6600 processors. It requires 48K to run standalone and a minimum of 56K under ARC. The released version occupies 10 files and 1200 sectors.

To order FORT55:

Software Model Code 9838

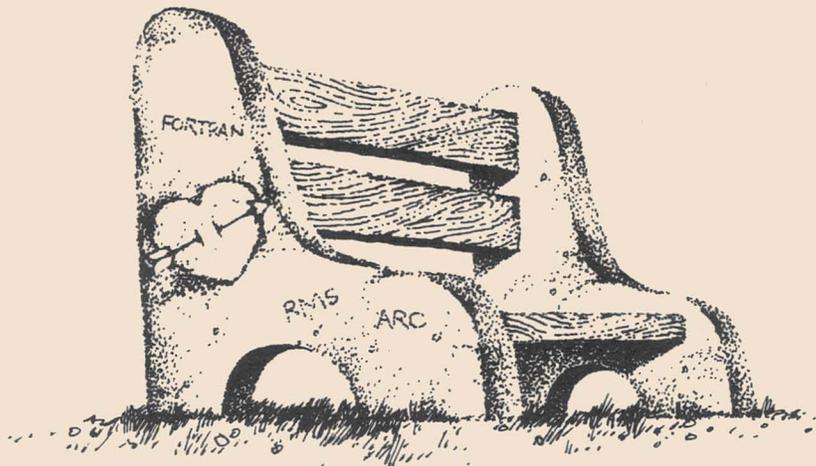
Media: 3 DMF Cassettes

2 Single-sided diskettes

1 Single-sided DDD

User's Guide Document No. 50526

The \$1500 license fee applies unless the software order accompanies a processor order, in which case the license fee is waived. Monthly software maintenance is \$10.



## PERFORMANCE

Simple benchmarks have been conducted by Product Marketing in San Antonio to compare the performance of FORTRAN on Datapoint 1500, 1550, 1800, 3800, 6000, and 6600 processors.

### Software

FORTRAN 1.1 (1500) and FORT55 1.1 (5500) were used as the FORTRAN compilers.

ARC 1.6 was used with no options specified.

Current releases of DOS.H (1500/1550) and DOS.D (all others) were used.

COMPILATION TIMINGS were made with no options specified. Timing began when the compiler signon message appeared and ended when the DOS signon appeared.

LINK TIMINGS were made by executing a CHAIN file. Timing began when the LINK15 or LINK signon message appeared and ended when the CHAIN completion message appeared.

COMPUTATION-BOUND PERFORMANCE was tested by executing the test program generated by the procedure just described. Timing began when the FORTRAN program rolled up the screen, and ended when the FORTRAN STOP message appeared.

DISK INPUT-BOUND PERFORMANCE was tested by executing another program generated and timed by the same procedure.

DISK OUTPUT-BOUND performance was tested by a third program generated and timed by the same procedure.

### Hardware

1500 processor (64K) timings were taken with the booted drive being a single-sided diskette unit. However, all major utilities, the FORTRAN compiler

and source code, etc., were on a 9320 disk drive. Thus diskette I/O was a negligible factor.

1550 processor (64K) timings were taken in exactly the same configuration as the 1500.

1800 processor (64K) timings were taken with 9320 disk only. In fact the same 9320 disk was used for both 1500, 1550, and 1800 testing. All test software resided on logical drive 0.

3800 timings (64K) were taken against a 4634 file processor. No other inter-processor bus traffic or file processor load was present. In fact, after each program was run the file processor and 3800 were re-initialized to assure that buffering in the file processor did not affect subsequent timings.

6000 timings (64K) were taken in exactly the same fashion as those for the 3800.

6600 timings were taken on a standalone 4630 system. All software resided on logical drive 0.

### Results

The following table summarizes the timings obtained during the benchmark. All times are stated as "minutes:seconds".

	COMPILATION	LINK	COMPUTATION- BOUND	INPUT- BOUND	OUTPUT- BOUND
1500	:27	1:47	4:30	2:53	1:36
1550	:16	1:19	2:24	1:32	:55
1800	1:54	2:23	16:58	10:22	6:44
3800	1:58	2:15	16:02	10:30	7:03
6010	:37	1:22	3:50	3:02	2:03
6600	:35	1:03	3:50	2:25	1:55

All timings were taken with the second hand of an analog watch, rather than a stopwatch. *continued*

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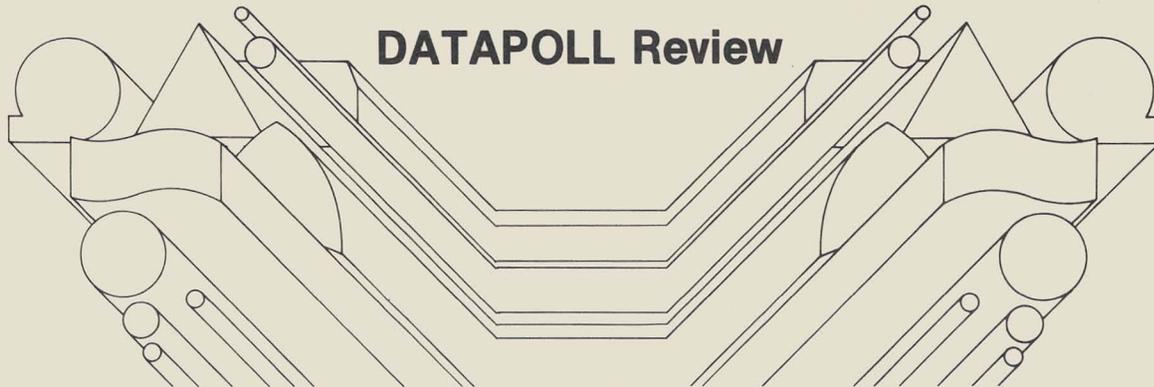
### Conclusions

Several conclusions can be drawn from this benchmark.

1. 1550 FORTRAN running from 9320 disk gives performance comparable to a 6600 on 10MB disk. In fact, for computation, a major use of the FORTRAN language, the 1550 exceeds 6600 performance levels.
2. 1800 on 9320 disk and a 3800 on ARC are roughly equivalent in performance in all respects. Un-

fortunately, this performance is about 3 to 4 times slower than a 6600, and 7 times slower than a 1550 in all cases except for LINKing. Performance-sensitive environments dictate the use of a 1550, 6000, or 6600 processor.

3. For all processor types, disk input is 1.5 or more times slower than disk output. For example a 1550 reads records at 174 records per minute, but writes records at 313 records per minute.



DATAPOLL is a series of programs for collecting and distributing files in a dispersed data processing network.

Look at an application where DATAPOLL might be useful. Suppose you have several branch offices using DATASHARE for data entry during the day. At night, you want to collect the data from the branch offices, get it on a magnetic tape, process the tape on a mainframe, then distribute reports back to the branch offices.

DATAPOLL is ideally suited for collecting and distributing data between Datapoint systems with different storage media. All you have to do is tell DATAPOLL the phone numbers plus the files you want transferred and DATAPOLL will automatically dial the branch offices and collect the data on a magnetic tape. Later when the reports have been generated, DATAPOLL can be used to automatically dial the branch offices and distribute the reports. You can tell DATAPOLL to send the reports directly to the printer at the branch office or to the disk where the reports may be printed at a later time. DATAPOLL automatically takes care of any differences in storage media compatibility. It's as easy as that.

Now, suppose you decide to implement some new applications at the branch offices. You've got all your application programs written and compiled but you need to get the compiled programs to the branch offices. Again, DATAPOLL provides an easy solution. At the branch office, DATAPOLL will have to be loaded into the system. That's as easy as typing in the name of the program. After that, no further action is required by the operator. DATAPOLL will run automatically, unattended. At the central location, you provide DATAPOLL with the phone numbers plus the names of the compiled programs. DATAPOLL dials the branch offices and distributes the software. Optionally, you might want to use the DATAPOLL logging feature so you have a hardcopy record of what was distributed.

DATAPOLL is useful for unscheduled software updates too. For instance, maybe a branch office

discovers a problem with an application program which necessitates a source change. You change the source program, compile it, and DATAPOLL the new version to the branch office in a matter of minutes. Quick and easy.

Let's say one of the branch offices has grown and needs to upgrade from a diskette system to a larger disk system. That means the application programs, utilities, and other required files have to be moved from diskette to the new disk storage media. Maybe you want to save the branch office from having to move the files to the new storage media. Can it be done? Easily. All the branch office has to do is mount a disk volume which has a copy of Datapoint's Disk Operating system and DATAPOLL on it and you can down line load the application programs, utilities, and required files from a central location.

Anytime you need to transfer files from one Datapoint system to another, try DATAPOLL. It's easy to use and quicker than most other methods. Look at some of the features DATAPOLL provides:

1. Transmission to and from magnetic tape, disk, or cassettes.

2. Magnetic tape support including IBM labels, ANSI labels, and full blocking capabilities.

3. Efficient telephone line use to reduce phone bills.

- A. Compresses all spaces and duplicate characters to reduce transmission time.

- B. Transmits up to seven blocks before waiting for an acknowledgement to reduce idle line time.

- C. Performs error recovery at the block level. Thus, if a file was partially transmitted and the line was disconnected due to errors (timeouts), DATAPOLL redials and picks up from where it left off without having to retransmit the entire file.

- D. Operates in an automatic, unattended mode which facilitates using it during off hours to take advantage of night rates.

*continued*

continued

4. Automatic dialing and answer.
5. Polling facility for collecting and distributing data to an unlimited number of slave stations executing in an unattended mode.
6. CHAIN and CHAINPLS operation.
7. Security feature to prevent unauthorized access of files.
8. Logging feature to provide a hardcopy log of what was collected and distributed to whom.
9. Comprehensive error checking to insure all data is transferred correctly.

10. Utility function for transferring files between cassette systems, magnetic tape, disk systems, or different disk operating systems.

11. Multivolume file support to allow receiving files too large to fit on one disk.

There are 24 DATAPOLL programs which may be used in a wide variety of hardware configurations. The chart below is organized according to the peripheral supported and will help you select the DATAPOLL for your application.

Program Name	Processor Type	Comm Adaptor	Peripheral Supported
DPASP	2200 (8K)	9402	CASSETTE
DPSASP	2200 (8K)	9404	CASSETTE
DPDCP	2200 (12K)	9402	MAG TAPE
DPDDP	2200 (12K)	9402	MAG TAPE
DPLOG	1130 2200 5500 6600	9402	MAG TAPE
DPMTM	1130 2200 5500 6600	9402	MAG TAPE
DPMTS	1130 2200 5500 6600	9402	MAG TAPE
DPMTM18	1800 3800	9402	MAG TAPE
DPSDCP	2200 (12K)	9404	MAG TAPE
DPSDDP	2200 (12K)	9404	MAG TAPE
DPSMTM	1130 2200 5500 6600	9404	MAG TAPE
DPSMTM18	1800 3800	ICA 9481	MAG TAPE
DPSMTS	1130 2200 5500 6600	9404	MAG TAPE
DPDMP	1130 2200	9402	DISK
DPDSP	1130 2200	9402	DISK
DPDMP55	5500 6600 1800 3800	9402	DISK
DPDSP55	5500 6600 1800 3800	9402	DISK
DPSDMP	1130 2200	9404	DISK
DPSDSP	1130 2200	9404	DISK
DPSDMP55	5500 6600 1800 3800	9481 9404 ICA	DISK
DPSDSP55	5500 6600 1800 3800	9481 9404 ICA	DISK
DPS15M	1500	ICA	DISK
DPS15S	1500	ICA	DISK
CCDP15	1500	ICA	DISK

Concepts of DATAPOLL Programming, Simplified User's Guide (Document 50204) is a good reference to get a basic understanding of the DATAPOLL system.

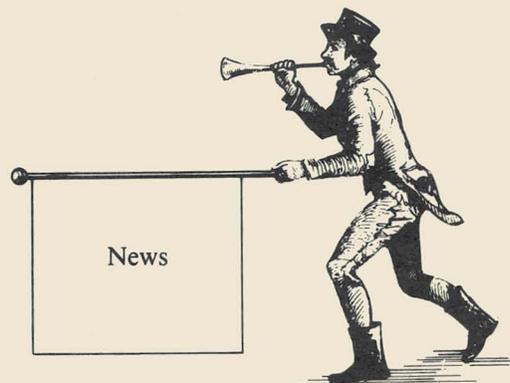
## DOS COBOL News

In the past several months DOS COBOL has experienced enhancements that may be of interest to you:

COBOL 3.2 featured an expanded compiler memory manager that provided dramatic improvement in compilation speeds. Changes made to the multisegment manager also brought reduced execution times.

COBOL 3.3 contained the software that lifted the exceptions on the ANSI X3.23-1974 rating. A revised version 3 COBOL User's Guide was also released (Document No. 50233) that consolidated the prior material.

If you would like to order DOS COBOL or the new User's Guide, please contact your local Datapoint office.





## Dialog with Readers

In response to our "book for your thoughts" campaign, you responded with many good ideas, comments and suggestions. Here are some of the questions and comments with Datapoint's response.

Some questions are being researched by different groups so may appear later. For another chance to write to Datapoint, see this month's "book for your thoughts". We encourage continued dialog with our readers on any topic.

**R** *Would welcome more articles on programming techniques: rules for efficient coding, results of benchmark tests, etc.*

**D** You'll find some benchmarks in this issue and we will continue to dig for techniques and hints. Readers could help by sending theirs - length is no object.

**R** *Would like to see some mention of the new systems supporting FORTRAN which I keep hearing of.*

**D** This issue contains an article about just that.

**R** *Really feel that your text file Library utility is the best (most useful) piece of software that you have come up with in years. Would you consider some type of Letters-to-the-Editor type article? Do you have any "electronic mail" type software in your IEOS?*

**D** The editor would be delighted to continue this dialog - that depends on you readers. Regarding electronic mail, we introduced it as an independent product in Issue 7 and have discussed it a couple of times since then (including the EMS article in this issue). Watch for more detail in the next issue regarding Message Services in IEOS.

**R** *Why are you still using sexist language? See p. 7 of March issue "The reader can probably think of many applications for REMDOS in his own installation..." yet in the article about WP on p. 13 "...each individual can access the LOGFILE library, then create... her own correspondence logs."*

**D** In spite of our best principles and intentions, we goofed. You are right and we humbly take the criticism. You shouldn't see it in future articles.

**R** *Suggest that complete subscription information be included in each issue. Profiles of actual installations, describing equipment configuration, implementation history, applications software and the like would be of great interest.*

**D** Subscriptions are as easy as sending us your complete address and name. Applications stories are so individual that we tend not to take advantage of them for our broad audience but we will consider your suggestion. You'll like the RMS success story in this issue I think, and also the general tone of some of the others.

**R** *Would be of great help if your schedule of upcoming classes would be published a few months in advance.*

**D** We walk a fine line with that. The schedule is only available for about three months ahead and we publish all that we know. It is always a good idea to peruse the Customer Education Catalog and call an education center for the latest information on class availability and scheduling. This issue contains brief descriptions of all current classes.

**R** *Enjoy the way you spotlight different topics in each issue (ARC, RMS, DS6). Would like some type of Question/Answer feature so all of us can benefit from each other's questions and problems.*

**D** You have only to ask!

**R** *When is a word dictionary or spelling check going to be incorporated in Word Processing?*

**D** This is one of the many features on the request list. Each release of IEOS (and we attempt to have

about three a year) offer more capabilities. After your initial investment in the training class, new releases are offered for only handling and mailing charges.

**R** Any thought to printing Datapoint User Group addresses?

**D** We have in the past. User Groups: send us your current addresses and any other information about your meetings and we will gladly publish.

**R** I use the section on Software Program Releases most. Second item of interest are ads from software vendors, and third the feature articles. Two suggestions: an occasional listing of latest release numbers for each item of software, monthly publication.

**D** Be sure to read the Release section this month carefully so we can get your feedback on it. The listing of latest releases for all software would simply be very cumbersome if we were to do it often enough to be useful. Check with your local office; they have that information. Bimonthly publication allows us to do more in-depth articles and to give you a meatier publication.

**R** Would like to see an article on recovery techniques for word processing documents and libraries which are "lost" or damaged by software problems.

**D** Recovery techniques have been simplified considerably in IEOS 1.3. That's a good idea though, so watch for an article on that in the next issue.

**R** Would like to see more DATABUS/DATASHARE optimization techniques as in issue 10. Print on less-stiff paper.

**D** Any readers have hints they'd like to pass on? For a two-sided publication, less-stiff paper could lead to "see-through" problems.

**R** In Software Program Releases section, please indicate when new or revised user's guides are associated with upgrades or changes.

**D** We'll look into providing that information. Since we are considering changes or expansions to the way the Release information is presented, any and all comments you readers might have on that would be appreciated.

**R** ARC and RMS articles in issue 11 sounded like sales talks. The piece comparing Datapoint's 3270 software packages was excellent. MULTILINK article should have been a comparison of the DATASHARE communications and remote users' packages. Software applications techniques like the correspondence log article are what your newsletter should do more of.

**D** Comments like that are very helpful. We will try to be more cognizant of our tone and the content of articles.

**R** Please send information regarding Datapoint user groups in the Western Tennessee Region.

**D** User groups: can you help?

**R** We enjoy the ARC articles and performance specs run on the various systems. Would like to see more on the up-coming 1550 series.

**D** Issue 12 discussed the 1550. Any readers who might want to contribute some notes on their use of it?

**R** What are the advantages of a two-processor ARC system? Of a two-processor RMS, ARC system?

**D** These kinds of questions are best directed to your local office. There is no one answer since your situation would dictate the best configuration.

**R** SOURCE DATA is invaluable; however, it is not suitable for "bootstrapping" oneself. Perhaps the Customer Education course "Introduction to Datapoint Programming" is suitable, but in my opinion, there ought to be a general book "The World of Datapoint Software - Simplified" for both the new programmer and the executive who only needs a general understanding.

**D** Three publications may be of interest: A Capsule Look at Datapoint (60313), An executive guide to dispersed data processing the Datapoint way (60331), and An Executive Guide - The Integrated Electronic Office (61045). Each of these is a simplified yet comprehensive introduction. In addition, for each product, a brochure provides specifics at a higher level than the "Simplified User Guide" series or the most detailed User Guides.

continued pg. 26

# Customer Education Courses

In addition to the customer education course schedule, we have included in this issue of SOURCE DATA short descriptions of the courses. These descriptions are just a summary of the information contained in the Customer Education Course Catalog (Document 60269). Please consult that catalog or talk to

one of the education centers shown on the accompanying map for more information, details on enrollment, costs, etc.

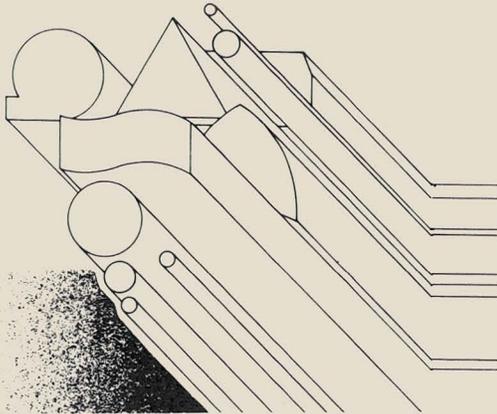
Each class is 4 1/2 days unless stated otherwise. Please note the prerequisites.

## DISK CONCEPTS AND OPERATIONS

Designed for operations personnel with little or no data processing experience. Lab and lecture sessions cover fundamental functions of the Datapoint processor and its peripherals and Disk Operating System (DOS) utility programs. Also included is actual operation of processors, disk and diskette drives, printers, and magnetic tape systems and discussions of DOS file structure and some error recovery procedures.

At completion, participants will be able to use basic DOS utility programs to accomplish simple file maintenance tasks at their installation.

PREREQ: none



## DISK OPERATING SYSTEM

Intended for working programmers, computer operators and systems analysts who need a thorough and comprehensive knowledge of DOS and utility programs. Good preliminary to DATABUS/DATASHARE language course.

Lecture, discussion, lab exercises and demonstrations cover the Datapoint operating environment and utility programs for file maintenance, multiprogramming and multiprocessing with ARC. Upon completion, students will be able to operate their systems, maintain source and data files, and use available error recovery procedures.

PREREQ: working knowledge of data processing and programming terms and concepts

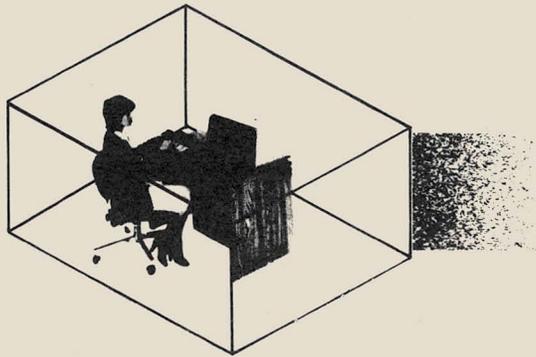
## INTRODUCTION TO DATAPPOINT PROGRAMMING

Designed for users without programming experience. This course or equivalent experience is a prerequisite to more advanced programming courses.

Describes basic components of data processing systems, including the processor, peripherals, and the input/output bus. Flowcharting and program logic, along with Datapoint disk file and record structure, are examined. Based on DATABUS, Datapoint's general purpose business language, the course teaches a selected group of DATABUS instructions and appropriate DOS utility programs and their instructions.

Lab sessions guide the student through simple DATABUS programs so at the completion of class, students will be able to write, compile, and debug simple data entry programs in DATABUS.

PREREQ: Disk Concepts and Operations recommended

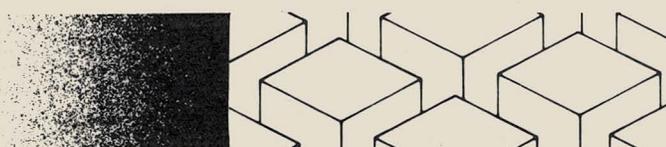


## DATABUS/DATASHARE

Programming language class for programmers experienced in at least one other procedural language such as COBOL, FORTRAN, BASIC. The majority of the DATABUS verbs and their uses are explained and the operating environment (single-user or time-sharing) is considered.

Upon completion, students will be able to write, debug, and execute DATABUS programs for the applications at their sites.

PREREQ: programming experience in a procedural language





### ADVANCED DATASHARE

Provides the in-depth understanding of DATASHARE necessary for efficient system design and programming. Participants become familiar with Datapoint hardware and software available for developing advanced DATASHARE business processing systems, including some of the various data communications alternatives.

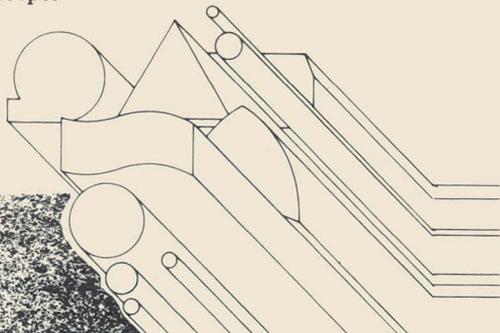
Students completing the class will be able to configure, maintain and optimize their DATASHARE systems.

PREREQ: working knowledge of DOS utilities and the DATABUS language

### ATTACHED RESOURCE COMPUTER® SYSTEM

Intended for persons responsible for configuring or maintaining an ARC system. Provides general overview of capabilities, requirements, and advantages of ARC. The concept of dispersed data processing facilities within one or more business locations is discussed, as are hardware and software requirements of ARC systems, including a variety of possible configurations. At the end of class, students will understand the components of an ARC system and their interconnections and be able to use ARC utility programs to maintain and optimize the operation of the system.

PREREQ: working knowledge of data processing and systems design concepts



### SNAP/3 ASSEMBLER LANGUAGE PROGRAMMING

Aimed at programmers with some assembler language experience, although not necessarily on a Datapoint computer. Teaches the use of Datapoint 5500 instruction set: one-for-one coding as well as creating and using macro-instructions. Also discussed are generation of absolute and relocatable code and the DOS interrupt scheduler.

Upon completion, participants will be able to write, debug, and execute assembler programs for applications or DATASHARE ACALL use.

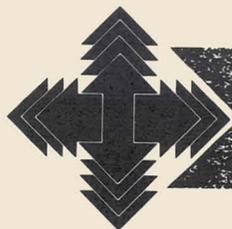
PREREQ: programming experience, including assembler

### RESOURCE MANAGEMENT SYSTEM ORIENTATION

Intended for programmers and operators, this furnishes knowledge of basic RMS concepts, required procedures and all system utility programs.

Participants in the class will be able to configure RMS systems of all kinds, establish and maintain relational disk data structures and system/data security, and perform program and data conversions from DOS to RMS with RMS utilities and language.

PREREQ: experience in programming with at least one high-level language such as DATABUS or COBOL OR experience in the operation or management of large-scale, multi-partition, multi-tasking computer systems.



### INFOSWITCH/ACD

Designed for supervisors, this course provides training on routine ACD operation. Focuses on basic system information and routine operating techniques including general call process, system initialization, agent instrument call handling, host and supervisor consoles, commands, command sequences and scheduling, usage data reports and call history reports. An overview of the hardware/software architecture and routine maintenance is also given.

Students completing the course will be able to effectively operate equipment, manage the data base, produce and read statistical reports, and dynamically control call handling.

PREREQ: have installed ACD equipment

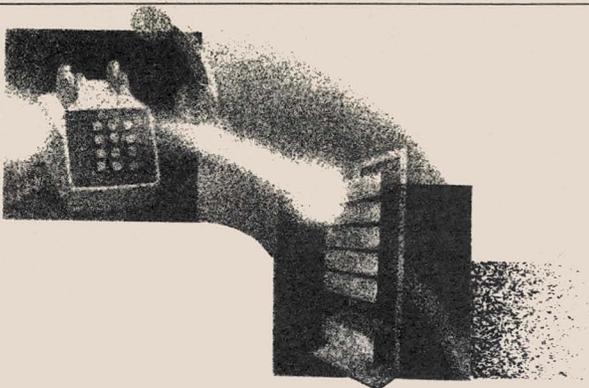


### BASIC INFOSWITCH/LDCS

Two separate classes - one for Versions 2&3, one for Version 4. For inexperienced operator who will be using LDCS/SHARE software, provides initial training in routine system operation. An introductory class includes basic system information and routine operating techniques such as general call process, commands, command sequences, usage statistics, call accounting and traffic analysis. Also gives an overview of hardware/software architecture and routine system maintenance.

Students completing this class will be able to effectively operate their LDCS equipment, manage the data base and produce and read the LDCS statistical reports.

PREREQ: installed LDCS equipment at the student's site



### ADVANCED INFOSWITCH/LDCS

Intended to assist the experienced system operator. Provides instruction in advanced system information and operating techniques such as detailed call process, custom command sequences, DOS and commands, report analysis, file formats and report formatting, file manipulation, network analysis, and traffic management techniques.

Upon completion, students will have technical knowledge to custom tailor the capabilities of the LDCS system to fit the demands of their company.

PREREQ: thorough working knowledge of routine system operation and commands with no less than nine months of experience with LDCS



### WORD PROCESSING CONCEPTS AND OPERATIONS

Basic instruction in the theory and operation of Datapoint's Word Processing system. Commands are described and taught to enable the user to create, modify, and manage documents. Other areas of discussion include: system configuration, equipment operation, special font effects, primary and secondary formatting, manipulation of text segments, function keys, advanced printing, and library management. Taught for both stand-alone and ARC environments. Associative Index Method™ (AIM™) is discussed for use in document filing and retrieval and selected DOS utilities are also covered.

Upon completion, student will be able to return to his/her installation and, with further preparation, instruct other personnel in the use of WP system.

PREREQ: basic typing skills  
5 days



### ELECTRONIC MESSAGE SYSTEMS CONCEPTS AND OPERATIONS

Designed to instruct site manager/supervisor in fundamental operations of EMS. Message Service commands are taught to enable student to electronically send and receive messages created using Datapoint's Word Processing system. Cleanup of messages sent and received into archive libraries is discussed, as well as their retrieval using the Associative Index Method (AIM). System-wide control of address formatting, master mailstop listings and message broadcasting is covered.

Operation of the Network Controller is discussed in regard to creating, revising, and managing EMS mailstops, ports, and pools. Usage statistics and message costs are taught for daily and historical report generation. Sequences and system operating commands are also discussed for overall system maintenance. Students completing the course will be able to maintain the Network Controller at his/her site and train other personnel in the operation of EMS.

PREREQ: basic typing skills, working knowledge of Datapoint's Word Processing system, position as site supervisor/manager  
3 1/2 days



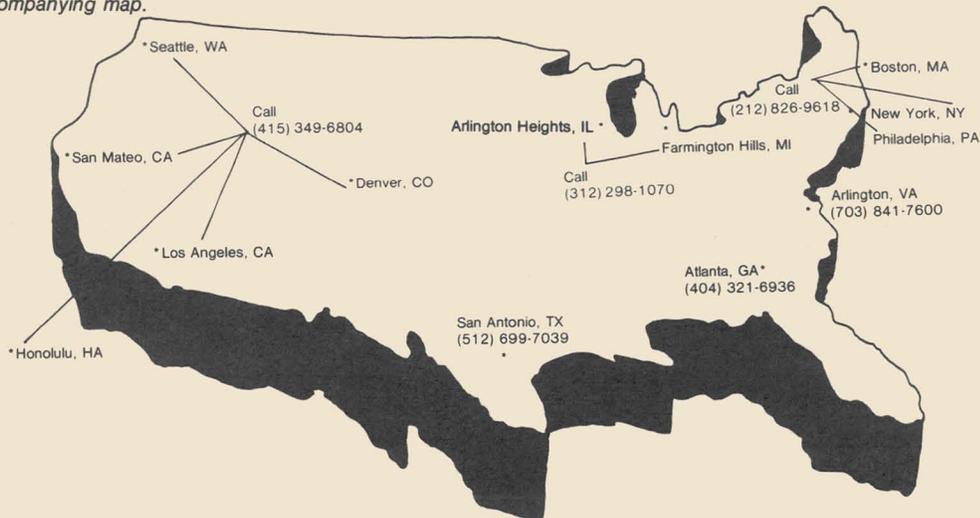
# Datapoint Customer Education Schedule August/October 1981



San Antonio  
Seattle  
San Mateo  
Los Angeles  
Denver  
Arlington Heights  
Philadelphia  
Atlanta  
Arlington  
Boston  
New York

Course	Location											
	Starting Dates											
Introduction to Datapoint Programming	8/24 9/28 10/26								8/31	8/10 9/14		8/10 8/17 10/19
Disk Concepts and Operations	8/3 9/21 8/17 10/12 8/31 10/26	9/14	8/24	9/21	8/24	8/3 9/14 10/19				8/24 10/12		8/31 9/21 10/12
Disk Operating System	8/17 9/28 10/26											9/28
Resource Management System (RMS)	8/10 9/21 8/24 10/12 8/31					8/31 10/26				10/5	8/17	8/3 9/14 9/21
DATASHARE	8/3 9/21 8/10 9/28 8/17 10/5 8/31 10/12 9/14 10/19	8/3 10/12	8/10 10/26	8/17		8/24 9/28 10/26	9/21 10/19	10/5	8/31 9/28 10/26			8/10 10/5 10/26
Advanced DATASHARE	8/24 9/21 10/19					8/10 10/12					9/14	
Attached Resource Computer (ARC)	8/24 9/28 10/19						9/21					
Word Processing Concepts and Operation	8/17 10/19 8/24 10/26 9/14 9/21 10/12		8/3 8/31 9/28 10/19			8/10 9/14			8/17 9/21 10/19			8/17 9/14 10/5
Electronic Message System (EMS)	8/24 10/5					8/17 10/5						
Basic LDCS	8/17 9/28 10/26										10/19	
Advanced LDCS	9/14											
Automatic Call Distributor (ACD)	8/10 9/21 10/19											

For details on Datapoint Customer Education, see their Course Catalog, Document No. 60269. To enroll, call the education center numbers indicated on the accompanying map.



# Learning About Software Releases

Illustrated below and on the next page is a Software Release Form. These forms are issued for every new release of a software product. They are sent to Datapoint branch offices in the Software Operations Newsletter they receive periodically. SOURCE DATA will continue to publish the table of condensed information from releases. If you would like to see more detailed information on a particular product, contact your branch office to see the Release Form for that product. If they don't have it in hand at the moment, they can request a copy from Software Support in San Antonio for you.

We would very much appreciate hearing from you about this. Is there too much information in the table? not enough? not the right information? Let us know about the usefulness of this section to your work and your interest in Datapoint products. Thanks.

DATAPOINT COMPUTER SYSTEMS DIVISION  
PROGRAM RELEASE FORM

NOTE: LICENSE REQUIRED

The software item documented on this form is the property of Datapoint Corporation and may be used or transferred only pursuant to the terms of a license agreement between Datapoint and the user.

SYMBOL/VER.REV: REMDOS 1.2

DESCRIPTION: Remote DOS Maintenance Program

PURPOSE: A - Corrects problems (bugs)  
C - Adds new features (Enhancements)

RELEASE MEDIA: Cassette, Diskette, & Double Density Diskette

TOTAL SECTOR SIZE: 312 Sectors

SOFTWARE CANCELLED BY THIS RELEASE: REMDOS 1.1

EXECUTION SUPPORT:

Software: DOS.A/.B 2.4  
DOS.C 2.4.2  
DOS.D 2.6.1  
DOS.E/.G 2.6  
ARC 1.6

Hardware: Processor: 117C/1800/3800/5500/6000/6600  
Minimum Size: 48K  
Disk: 932X/935X/936X/937X/938X/939X  
Comm: 9481/9404/1800 ICA

5500/6600 Partition Supervisor Compatible: No

NOTE: 3800 execution requires DOS.D and ARC.

RELEASE ITEMS:	MODEL CODE	RELEASE
User's Guide:	50465	Previously Released
Program Media:	20648	1 DMF Cassette
Program Media:	20649	1 Diskette
Program Media:	40412	1 Double Density Diskette

DETAILED DESCRIPTION:

REMDOS (REMOTE MAINTENANCE DOS) allows a Datapoint processor operating as a master to control the display and keyin of another Datapoint processor operating as a Slave for maintenance purposes. Any command keyed in at the master is transmitted to the Slave which executes as if the command had been keyed in at the Slave processor. All data that would normally be displayed at the Slave processor is displayed at the master. Text files may also be sent and received by

the master to the slave along with the ability to send and receive messages between a slave and master operator.

REVISIONS:

1. Continuous Carrier is now supported.
2. Improved performance in message format.
3. SASK - Master now returns properly after a \*TIME=OUT\*.
4. Master no longer clicks after receiving data packets.
5. SOFF <DOS command> - Slave doesn't ask "WHAT?" before executing the command.
6. Corrected a bug so that the slave would correctly return to DOS after SOFF on 9404 and ICA comm adapters.
7. Added slave screen display option by entering ";D" on the slave command line. Ex: RDJSSLAV;D or RDOSSLAV 9481;D
8. Added support for 9320 disk.
9. Added support for CHAINPLS. (Logging not supported)
10. SASK command now times out after two minutes if the slave operator does not respond.
11. The slave screen information message now clears the whole screen on an 1800 or 3900.
12. Slave now goes back to "WAITING FOR DATA MODE" if communications line drops.
13. Comm adapter type can now be KEYED IN on command line. Ex: RDOSMAST 9404 or RDOSSLAV ICA;D
14. Implemented special handshaking so REMDOS will only connect with MASTER/SLAVE of same version. Added error message "NOT CONNECTING TO REMDOS 1.2" to be displayed if handshake routine fails. REMDOS 1.2 is not compatible with REMDOS 1.1.
15. Changed time-out value for receive mode in MASTER modules from 3 to 3.5 seconds.
16. Fixed a problem in LOADXS intercept that caused REMDOS commands (\$) to not be recognized following local commands (&) on a 1300/3300.
17. Added check for options following SOFF. Anything but R option will cause rejection of the command.
18. Added code to restore the DOS routines intercepted before JUMP to ERRORS when "ERROR IN COMMUNICATIONS" occurs.

19. Corrected a problem in the ICA modules that caused a garbage screen when loaded from DOS.G 2.6 double-sided double-density diskettes.

PROGRAM FILES RELEASED:

- RDOSMAST/CMD Absolute Master REMDOS Command File
- RDOSSLAV/CMD Absolute REMDOS Slave Command File
- RDOSSLAV/REL Relocatable COM-Drivers for Slave REMDOS
- RDOSMAST/REL Relocatable COM-Drivers for MASTER REMDOS
- REMDOS/RFM Release Form Print File

RELEASED BY:

CERTIFIED BY:

APPROVED BY:

DATE:

DATE:

DATE:

## Software Releases

<i>Name/Date</i>	<i>Description</i>	<i>Purpose</i>	<i>Model</i>	<i>Media*</i>
CHIOUR 2.2 Released 1 Jun 81	Utility program for Datapoint Channel adaptor. Emulates up to 16 unit record type devices when attached to byte multiplexor channel on IBM 360/370. Provides "hot reader" queue, nonstandard record lengths, and alternate system console.	Corrects problems Cancels CHIOUR 2.1	20503 50367	1 DMF Cassette User's Guide
DCCONV18 1.3 Released 14 Apr 81	1800 single/double density file copy utility.	Corrects problems Cancels DCCONV18 1.2	40310 50343	1 DDD User's Guide
DCDFMT18 2.1 Released 16 Apr 81	1800 IBM diskette conversion program for copying text files between Datapoint formatted diskettes or file on remote ARC volumes, and IBM compatible diskettes.	Corrects problems Cancels DCDFMT18 1.2	40311 50344	1 DDD User's Guide
DCIOV1 2.2 Released 28 May 81	ARC direct channel interface option to allow use of IBM 360/370 as an applications processor or resource.	Corrects problems Cancels DCIOV1 2.1	9806 50379	1 DMF Cassette User's Guide
DPDMP55 4.1 Released 27 Mar 81	ARC direct channel interface option master program.	Corrects problems Cancels DPDMP55 3.2	20622 20623 40408 50456 50196	1 DMF Cassette 1 Diskette 1 DDD User's Guide System's Guide
DPDSP55 4.1 Released 9 Apr 81	5500 DATAPOLL asynchronous disk slave program.	Corrects problems Cancels DPDSP55 3.2	20618 20619 40406 50453 50196	1 DMF Cassette 1 Diskette 1 DDD User's Guide System's Guide
DPSDMP55 4.1 Released 27 Mar 81	DATAPOLL synchronous disk master program.	Corrects problems Cancels DPSDMP55 3.2	20609 20610 40404 50451 50203	1 DMF Cassette 1 Diskette 1 DDD User's Guide System's Guide
DPSDSP55 4.1 Released 7 Apr 81	DATAPOLL synchronous disk slave program.	Corrects problems Cancels DPSDSP55 3.2	20611 20612 40405 50452 50203	1 DMF Cassette 1 Diskette 1 DDD User's Guide System's Guide

<i>Name/Date</i>	<i>Description</i>	<i>Purpose</i>	<i>Model</i>	<i>Media*</i>
DS6 1.1.1 Released 5 Jun 81	DATASHARE VI maintenance release. All DATABUS programs using AIM must be recompiled using DBCMPLUS 3.1.1 and AIMDEX 2.6.2 Also requires UPS 2.1, DSSLAVE 1.1.	Corrects problems Cancels DS6 1.1	9828  50536	4 Cassettes 2 Diskettes 1 DDD User's Guide
FIXREL 2.1 Released 12 May 81	Utility to modify relocatable code libraries generated by SNAP3 and/or LIBSYS when quick patches are needed without time to reassemble.	Corrects problems Cancels FIXREL 1.3	20441  20442 40336 50315 50314	1 DMF Cassette 1 Diskette 1 DDD User's Guide System's Guide
LINK15 1.2 Released 4 May 81	1500 linking editor for relocatable modules.	Corrects problems Cancels LINK15 1.1	20663 20793  20697  50468	Software Double- sided DDD Single-sided Diskette User's Guide
LOAD18 2.1 Released 6 Apr 81	DOS.D 2.6 utility to transfer data between 9320 disk and 1800 diskette.	Corrects problems Cancels LOAD18	40426 50498 1.1	1 DDD User's Guide
MD378015 3.1 Released 13 Apr 81	Emulates online characteristics of IBM 3780 data communications terminal in point-to-point or multipoint environment. Also emulates IBM 3741.	Corrects problems Cancels MD378015 2.1	20671 20793  20697  50478	Software Double- sided DDD Single- sided Diskette User's Guide
MLDC1000 2.1 Released 12 May 81	MULTILINK driver as RJE station - Burroughs medium and large systems using Burroughs NEWLINE RJE discipline.	Adds new 399 features Cancels MLDS1000 1.4	20399  20401 50280	1 DMF Cassette 1 Diskette. User's Guide
ML15VIP 1.2 Released 27 Mar 81	MULTILINK driver to interface 1500, DBML15 with Honeywell VIP 7700 system. Emulates one terminal.	Adds new features Cancels ML15VIP 1.1	20770 20793  20697  50532	Software Double-sided DDD Single- sided Diskette User's Guide
ML3780 3.1 Released 8 Apr 81	MULTILINK driver to emulate IBM 3780 in nontransparent binary synchronous mode.	Corrects problems Adds new features Cancels ML3780 2.2 and ML378018 2.2	20469  20470 40326 50338	1 DMF Cassette 1 Diskette 1 DDD User's Guide

\*Media charge - \$15.00 for one cassette, diskette, or double density diskette  
 \$125 for 2.5 MB disk, \$180 for 10MB disk, \$385 for 25MB disk, \$505 for 60MB disk

<i>Name/Date</i>	<i>Description</i>	<i>Purpose</i>	<i>Model</i>	<i>Media*</i>
REMDOS Released 12 May 81	Remote maintenance DOS program. (See sample release sheet on page 20.)	Corrects problems Adds new features Cancels REMDOS 1.1	20648	1 DMF Cassette
			20649	1 Diskette
			40412	1 DDD
RMS 1.3 Released 24 Apr 81	Resource Management System. Adds 8800 processor support in standalone environment; adds communications support for non 8800 systems. (See article in this issue for details.)	Corrects problems Adds new features Cancels RMS 1.2	9829	RMS Com- munications
			9830	RMS Nucleus, utilities
			9831	RMS DATABUS
			9832	RMS DATA- SHARE
			9835	9830 plus 9832
		9836	RMS COBOL [see article in this issue for user's guides]	

### Diagnostic Program Releases

<i>Name/Date</i>	<i>Description</i>	<i>Purpose</i>	<i>Model</i>	<i>Media*</i>
COMM1800 1.3 Released 1 Jun 81	1800 Communications channel test program.	Corrects problems Cancels COMM1800 1.2	20535	1 DMF Cassette
			40355	Single- sided DDD
			40459	Double- sided DDD
			50389-1	User's Guide
DISK1415 1.1 Released 2 Apr 81	Tests the 1400 dual diskette drive from a 1500 processor.	New software	40440 50538	Double- sided DDD User's Guide
DISK1418 1.1 Released 4 Apr 81	Tests the 1400 dual diskette drive from an 1800 processor.	New software Cancels DISK1418 A.A	20774 40428 50509	1 DMF Cassette Double- sided DDD User's Guide
MEMTST15 1.1 Released 7 Apr 81	Tests memory of 1500 and 1550 series processors.	New software	20790 20697 20793 50606	Software Single- sided Diskette Double- sided DDD User's Guide
SER15 1.2 Released 13 Apr 81	First level diagnostic for serial printers connected to 1500 or 1550. Tests Freedom, Matrix, and Belt printers.	Corrects problems Cancels SER15 1.1	20659 20697 20793 50466-1	Software Single- sided Diskette Double- sided DDD User's Guide

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### Dialog with Readers continued

**R**

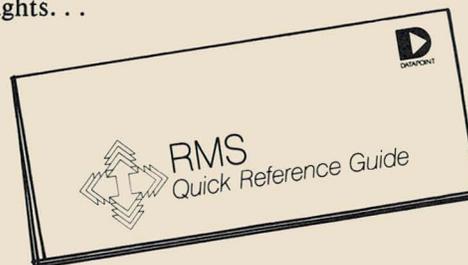
*Would like to see more articles on WP. The article on the correspondence log file gave us the idea of putting our program maintenance requests in a similar log. We can now search on the printer on keys of estimated completion date, type of request, analyst assigned, etc. and have a report for our Monday morning staff meeting that shows where we are on everything. Will we ever have the capability to specify more than one DATAFILE for an autotyped document?*

**D**

*Your new use of our idea is very gratifying. IEOS 1.3 allows you to use more than one DATAFILE for autotyping.*

### A book for your thoughts. . .

For writing to us, you can receive a free copy of the RMS Quick Reference Guide. We especially would like stories (or just comments) on how you are using AIM - the Associative Index Method. But comments, questions on any topic are welcome.







# DATAPOINT

SOURCE DATA #T41

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