Achievement Club in Hawaii in 1982? Systems Conference on the Ski Slopes?

Q1 Revenue Will Guarantee It!

The 1982 Achievement Club will convene in Hawaii next fall and systems conferences will be held in Q2 at a ski resort, provided Marketing Division achieves 105% of its Q1 revenue target. Incentives (such as this choice location for the Achievement Club) and other awards have been introduced by Steve James to stimulate revenue in the first quarter of Fiscal 1982.

"Where Achievement Club is held in 1982 depends on revenue generated in Q1," commented Mr. James. "If we don't reach 105% of the Q1 revenue goal we'll plan the Achievement Club for another location. Exotic Hawaii will be replaced by a resort in California." Included in the Q1 revenue figures will be purchase orders that are Book/Shipped (Booked and shipped in Q1),Pull-Ins (purchase orders scheduled for delivery in Q2, Q3 or Q4 which actually ship in Q1 fiscal quarter), and lease to sale conversions billed in fiscal Q1. *continued on page 2*

8200 Version 2 for DOS and RMS Applications

Keeping in step with product compatibility, the 8200 Version 2 firmware provides new capabilities which can be used by both DOS and RMS applications.

Among the enhancements that the 8200 V.2 firmware provide are the ability to enable function keys without using down-line loading, as well as horizontal scrolling, inverse video and two-level highlighting (brighter than standard video). The product specification, 60786 is available from software distribution.

How do you get your existing 8200 to perform these new functions? By ordering the Model Code 0567 Kit, which is a firmware upgrade, V.2 ROM for the cost of $65 (U.S.), purchase only. Customer Service must install these ROMs in each unit and will charge a one-time site fee of $80 (U.S.) per site as well as $25 (U.S.) per terminal upgraded. The $80 site charge will be waived if the system is being installed.

Sigma Data Provides ARC System for Telethon

Australian distributor Sigma Data provided $500,000 worth of Datapoint hardware and created special software to assist Sydney's (Australia) Channel Ten break its million dollar target during its first computerised telethon.

The station recorded a total of over $1.5 million in pledges.

The appeal, which ran over part of the Easter weekend, raised money for the Spastic Centre of New South Wales, the Royal NSW Institute for Deaf and Blind Children and the Spinal Research Foundation.

In addition to the hardware and software, Sigma Data arranged to supply operators for the terminals.

Graham Pattison, Datapoint Product Manager, was appointed Technical Project Officer. Max McKay, Senior SE, wrote the necessary programs, and Dave Mahony, CE, was in charge of the installation. Susan Hitchener, Marketing Communications Manager, was responsible for arranging to supply a large number of operators.

The initially installed ARC system was upgraded half-way through the telethon. It took only five minutes to install the extra 30 percent more processor power.

And a Regional Bonus!!

In addition, Mr. James continued, all sales and systems employees in the top region, which have worked to achieve at least 110% of their Q1 goal, will be awarded a long weekend excursion. "Millard Allen will host the trip to a resort within the boundaries of the region, and spouses of the employees will be invited," Mr. James said.

As an incentive for the systems organization, Mr. James revealed that if the OPS areas achieve 105% or more of Q1 targets, the Systems Conferences will be held at a ski resort in Q2 rather than waiting until Q4.

Money Talks as Processors Convert

"There are monetary incentives for a productive Q1 in addition to the trips," added Mr. James. "All domestic sales personnel may receive 50% extra commission on all conversions that occur in Q1, plus 100% ISV of the net conversion price will be credited toward the 1982 Achievement Club."

The final destination:
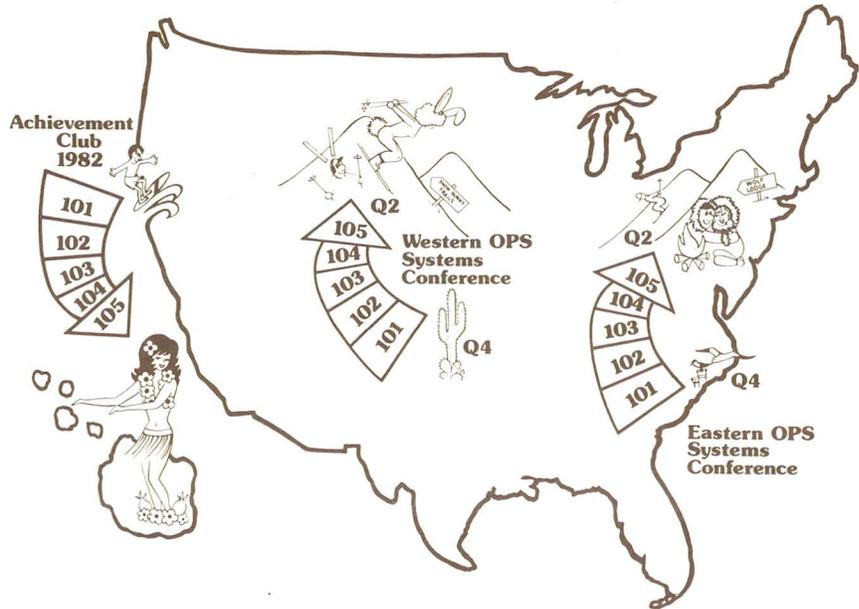
It's all up to you in Q1!

Marketing Information Exchange

Curtis Roberts in the Oklahoma City Branch Office is looking for an application package for a FIRE AND CASUALTY INSURANCE COMPANY. If you can help, please call at speed number 255.

HOW TO ORDER

LIGHTLINK

Three components are necessary for Lightlink installations. The model codes are:

The Pedestal 9583: You must order one 9533 for each LightLink installation. This results in the factory shipping one pair of pedestals. The model code for one pedestal is not in your price book.

Since the customer is to arrange for the Pedestal installations, the EOS should specify partial shipment, to allow the Pedestals to be sent first.

The Transceivers 9530: You must order one 9530. This results in shipment of two Transceivers, two power supplies, and two indoor cables.

The Outdoor Kit 9535: You must order one for each end which will be outdoors. This results in a shipment of one power supply and a pair of special outdoor cables. This should also be shipped partial to enable the customer to install the cables.

The model code structure is designed to ease your order procedure. Do not try to order subparts to the above for any installation. The cables supplies are required for proper system operations.

Al Malinger

For Internal Use Only

Band Printer Replaces Drum Printer

With the recent announcement of the new band printer (300 LPM - 9257; 600 LPM - 9258) the drum printer is being discontinued. Refurb units only will be available, and only for sale.

Please check all orders which have been submitted that might include a drum printer (model codes 9280, 9281, 9260, 9261). Since these are not available the order will be placed on hold automatically. You must change the order to the corresponding band unit. Don't forget to select the proper band and ribbons.

Band Printer Model Codes

9257　300 LPM Band Printer
9258　600 LPM Band Printer

Options For 9257
0202　Accoustic Cabinet (factory installed)
0204　64 Character Band (15 CPI)
0205　96 Character Band (10 CPI)

Options For 9258
0202　Accoustic Cabinet (factory installed)
0226　96 Character Band (10 CPI)

RIBBONS - Model Code 80513

Documentation
Product Specification - Document Number
　　　　　　　　　　60974
Operators Manual　 - Document 60976
Maintenance Manual　- Document 75265
Specification Sheet　- Document 61039

Al Malinger

EMS™ at Use in the Home Office Provides Quantitiative Analysis

Occupying 41 different buildings in San Antonio, as well as almost 100 other locations across the country, Datapoint Corporation is obviously a prime prospect for its own Electronic Message System (EMS). In fact, since January of this year, a Corporate Pilot Project has been underway to explore the ways in which we can best utilize this unique and interesting product.

This pilot system has provided us with the opportunity to do some interesting quantitative measurements on EMS performance, including evaluation of the use of REMARC software (currently being tested in San Antonio only) in conjunction with the message system. Results and conclusions are detailed below. REMARC allows communications with remote ARC systems.

Currently the pilot system consists of a large ARC in San Antonio, which includes microwave radios, LightLink transceivers, and coaxial cable, together with a 6600 Network Controller and a 3800, used as a master station. This network is connected over double-RIMed File Processors to 13 other ARC systems in the various buildings. User stations are 3800-series processors connected to the local ARCs. In addition to providing security and reliability, this configuration is a super example of the flexibility inherent in the Datapoint ARC product.

1. Flood Testing.

We had expected to be able to reach a bottleneck in system capacity both at grade-of-service (poll cycles) and at message through-put. We were pleasantly surprised to find the load levels at which we expected to choke made no measurable impact on performance.

a. Poll Cycles.

With 56 users active, and all poll intervals set to one minute (i.e. one poll every 1.07 seconds) we measured message delivery times across the system. Traffic loading was set at 35,000 characters per hour. No delays in excess of four minutes were observed in the course of ten measurements (timings were taken by stop-watch, and the interval measured was between completion of the SEND function at the 3800 and appearance of the delivery log entry at the controller's printer).

b. Traffic.

With poll intervals set at 30 minutes for each of 56 active users, a four-page message (28

Local Network Links Nationwide Corporation

The 300-user Attached Resource Computer (ARC) system in place at Datapoint's home office proves that our local network can tie together a company with offices not just across town, but across the country.

Within San Antonio, 110 local stations are plugged in to the network's Electronic Message Service, connected by nearly 7 miles of coax cable. LightLinks join buildings up to a mile apart, and microwave transmissions cover an area up to 5 miles.

Six remote stations (Sunnyvale, Houston Region, Dallas Region, San Mateo Region, Northwest Region and Northeast Region) are accessible over telephone lines.

At the core of this giant network are a 6600 Network controller and a 3800 processor which functions as a master station. The network ARC is connected to 13 other ARCs in various San Antonio buildings through double-RIMed file processors. User stations are 3800-series processors connected to the local ARCS, which have a combined total storage capacity of nearly 11,000MB (11 billion bytes!).

Survey Shows EMS Can Solve Problems

While plans were being made to implement the network within Datapoint, a survey was taken among the initial users to determine what problems a corporate-wide EMS network could resolve. According to Mike Serveau, who conducted the survey through his office in Telecommunications, most respondents felt that much of the time spent in a meeting was wasted discussing information that the attendees should have had in advance.

Another concern was that managers could make better decisions if the necessary information was presented on the screen in front of them, rather than coming in over the telephone. Managers said they preferred to tackle a problem without someone on the other end of the line waiting for an immediate response.

A third area of concern was company business. Many respondents felt that using EMS would result in better communication, which would lead to faster installation of equipment and updated inventories.

A study is underway currently to determine if the EMS network has resolved these problems.

"Telephone Tag" and Paper Shuffling Reduced

EMS has the potential to eliminate much of the "telephone tag" which is played in any sizable corporation: Joe calls Jane, who is on another call; Joe leaves a message for Jane to call him; Jane calls Joe; Joe is out; Joe calls Jane back, Jane is out; Jane returns Joe's call, and so on. With a few keystrokes into the EMS network, Joe can ask Jane to meet him for lunch, and Jane can respond upon seeing the message on her processor screen. This saves Joe and Jane the time required to dial and redial each other's extensions; plus telephone interruptions are kept to a minimum.

The network at Datapoint headquarters reduces the amount of paper shuffling required for interoffice correspondence. Instead of typing a memo on a sheet of paper, photocopying it and distributing it, the electronic message service sends the messages automatically to the addressees, who in turn print hard copies as they wish. The EMS process can be used to forward attachments, such as business proposals, which may run to 30 pages. A 30-page document with a cover memo, photocopied for distribution to 20 people, requires more than 600 sheets of photocopies, which must be sorted, stapled, and stuffed into interoffice envelopes. Using the EMS network can also save time. It requires only the time it takes to input the document through word processing and place it in the OUTBOX to be picked up when the system is polled.

Datapoint's Guest Services office is a prime example of why users rely on EMS. "We're in trouble without it," said Marcia Regan, secretary/receptionist who is responsible for coordinating some guest visits. "When it gets to the last minute before a visit is scheduled, it's nice not to have to use interoffice mail to circulate a last-minute agenda." When an agenda change comes in, Marcia simply puts the new information into the EMS network and it is electronically distributed to the home office executives involved.
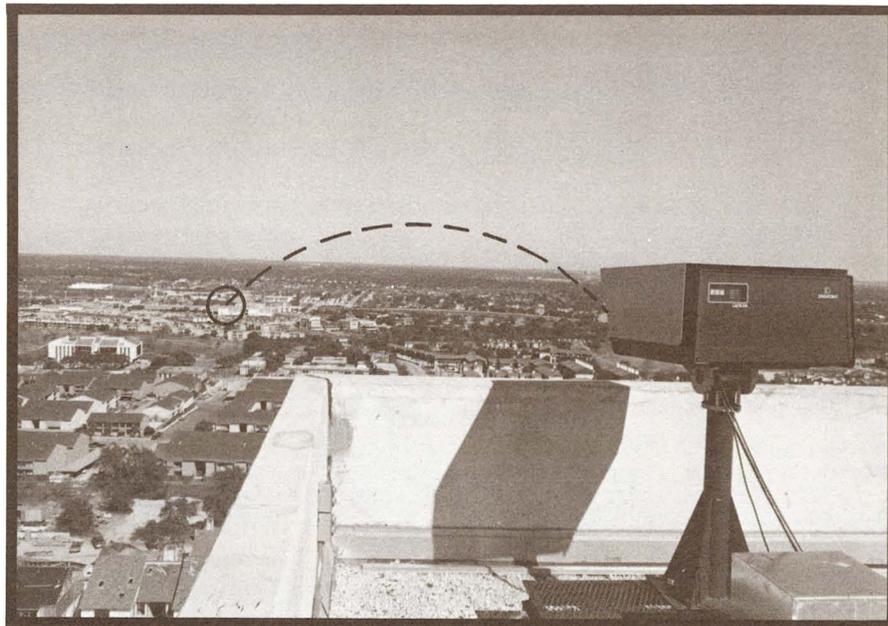
For Internal Use Only
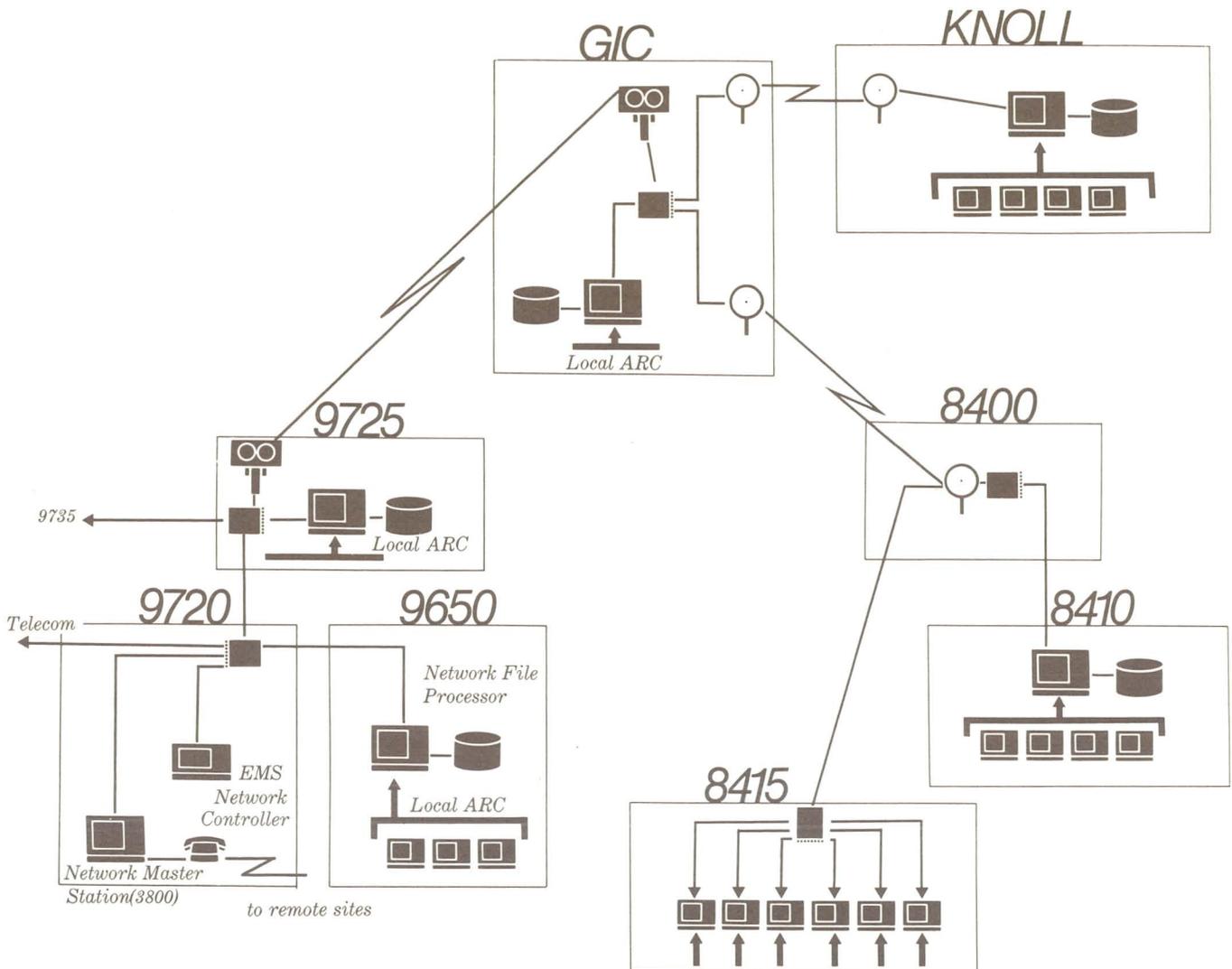
"Datapoint Corporate Network"

"We got along without EMS before," said Marcia, "but now that we have it we'd hate to give it up. And we're proud that EMS is a Datapoint product. We can prove that it works."

The network is used extensively throughout the corporation. During the two month period from March 16 through May 15, 2533 messages were sent to 4525 recipients. That's over 100 messages every day, during the first weeks the system was in operation.

Instruction Given in Class and on the Screen

Upon entering IEOS, the user receives systems bulletins. EMS provides an updated list of new sites that are connected to the network. It lists Datapoint's current stock price and volume traded, along with Dow Jones Industrials and Dow Jones Transportation quotations and volumes. There is also guidance on where to go for help while using EMS. The screen displays the number for the EMS "hotline" and the address of the "help" file containing detailed EMS instructions.

Susan Baker of the Office Systems Group instructed users of Datapoint's home office local network as each site was added. "The users were excited about EMS and anxious to try it out," she said. "For the most part the response was good.

"Although enthusiastic, managers were a little hesitant, because they feared their typing skills were insufficient to make use of the network worthwhile," Susan added. During the training sessions, Susan required her students to work with the equipment themselves, and most overcame their anxiety.
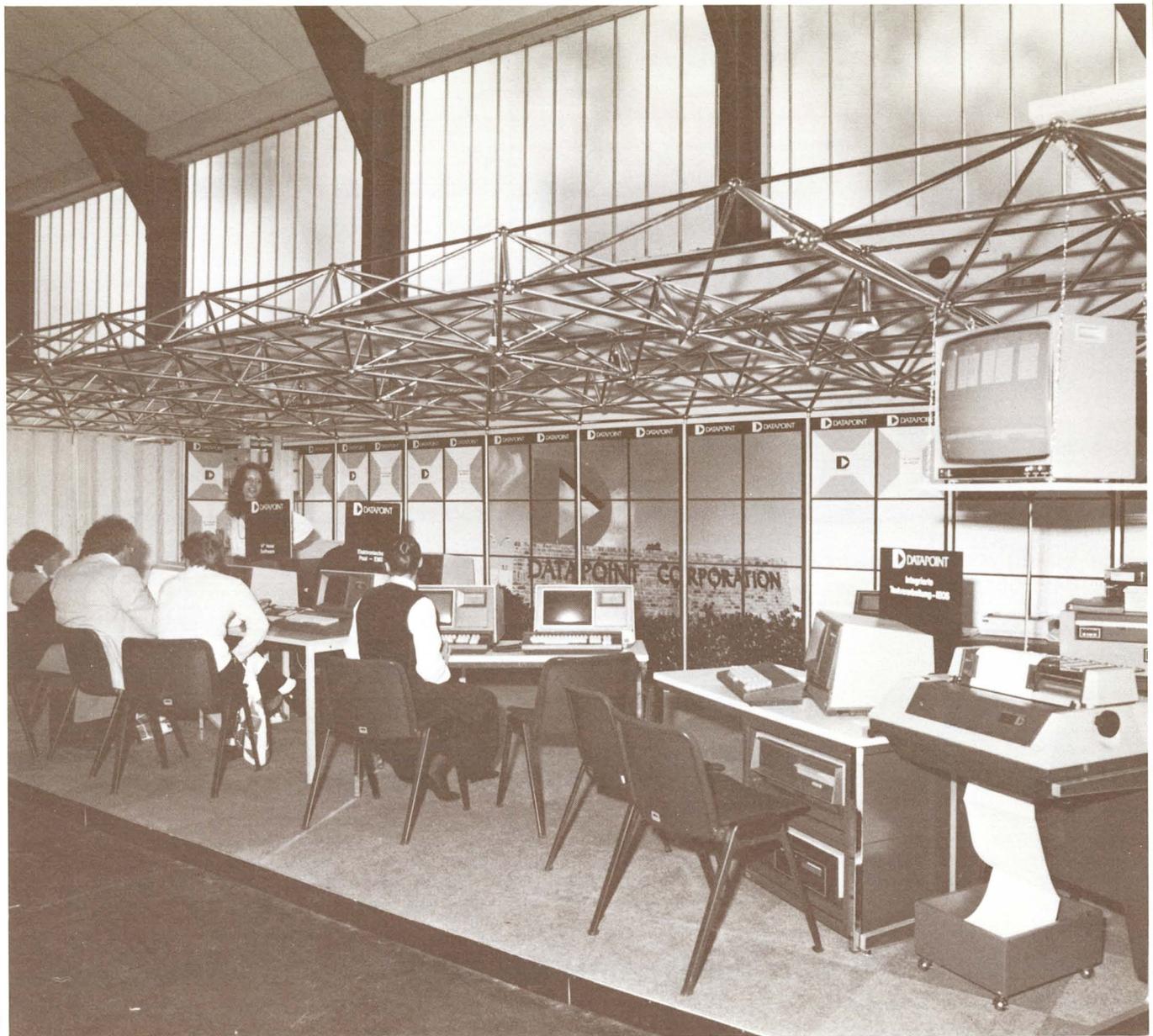
More than 200 companies visited the exhibit of Datapoint products at IFABO, a major trade show held in Vienna May 13 through 16. Datapoint was represented by our Austrian distributor, TRW International Services Ges.m.b.H.

8800 Configuration Program Update Available

A revised version of the 8800 configuration program is now available. The cassette tape contains two files: CFG8800/DBC and CFG8800/PRT (describing how to use the /DBC). This software is for DOS use. CFG8800 version 1.5 fixes all known bugs in prior versions. An initial distribution of the cassette was made to each region. Should you desire a copy, you can order it from Software Services as model code 20821.

The material on this cassette is for internal Datapoint use only. It is NOT to be released to customers.

Should you desire further information or wish to offer suggestions or updates, please contact Ted Rohling, Product Marketing Technical Support, ext. 7151.

Carolyn Lusk

For Internal Use Only

Channel Ten System

Additionally, Channel Ten's own Datapoint computers were integrated into the system to provide additional processing capacity. The telethon ran to its close with 30 Datapoint terminals and 9 processors, giving a total processing capacity of one megabyte of memory.

One hundred fifty telephones at the Channel's studios at Ryde received more than 50,000 separate donations during the 26 hours of the telethon. Each pledge was quickly and efficiently processed.

The 50,000 pledges represented 600 man hours of data entry -- a task completed in 30 hours. More than 60 people at a time were working in the computer area. The 30 screens were fully manned, and other people were occupied running batches of donations from screen to screen.

In the main studio, a computer terminal installed at the producer's desk gave a minute-by-minute total of pledges and cash received.

Finally, when the telethon was finished, the computer system produced individually addressed letters to send to pledgees. All of these letters were on their way by first mail on Tuesday morning . . . not a bad achievement considering that Monday was a public holiday.

From SIGMA NEWS,
March/April, 1981
Sigma Data Corporation,
Australia

8200s with the V.2 ROM already installed will start shipping during Q1. Any 8200 shipped for use with an 8800 system prior to the cut-in date of the new firmware will require an upgrade. Do not order an upgrade kit on the EOS that is ordering the 8800. In-house 8800 orders are being adjusted to include the 8200 Version 2 firmware installed prior to shipment at no charge.

In the event an 8200 that was SHIPPED WITH an 8800 processor does not contain Version 2 firmware, an upgrade kit will be provided for that customer at that site at no charge. In all other instances, the 0567 kit must be ordered as a separate line item on an EOS for the purchase price of $65 (U.S.).

Joyce Paes

RMS Communications
User's Guides

There are six RMS Communications User's Guides and all can be obtained by using one model code (50542) (U.S. price $22.50). This kit includes RMS User Communications Facility (50548), RMS 2780/3780 Emulator (50549), RMS HASP Emulator (50550), RMS DATAPOLL Master (50551), RMS Communications Facility (50552), and RMS Communications Installation and Configuration (50623).
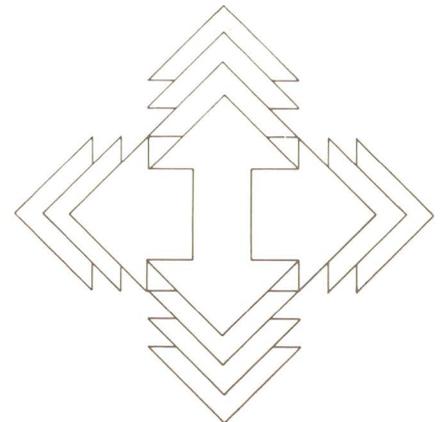
RMS 1.5 and Volume Updates

You should have already received notification about the release of RMS 1.5 and updates to Volumes I - IV in mid-July from Software Services.

Beginning with RMS version 1.5, we are offering help to those RMS users who are trying to maintain more than one set of RMS user documentation. At the bottom of the announcement mailgram is a documentation request form. Fill it out to order extra sets of the documentation that is released with the software update. This offer is good ONLY at the time your RMS maintenance pack is being updated. So, from now on, if you want extra copies of the documentation updates, complete the request form and enclose it with your RMS maintenance pack when you send it in. You will be billed for the extra documentation along with your freight bill. This applies to customers as well as internal Datapoint users.

Debbie Davenport

EMS

sectors) was delivered to each within 30 minutes of pickup by the controller. This loading is equivalent to 450 pages or 3136 sectors per hour.

CONCLUSION: An EMS configuration consisting of 500 stations, each polling at 30-minute intervals, and processing a total of 100 messages per hour, is feasible and practicable.

ARGUMENT: Total traffic load at 100 average messages/hour = 1200 sectors/hr; total polling overhead with 500 stations = 3.6 seconds/poll

The first of these figures is only 38% of the measured value from b) above, while the second is 29.7% of the poll rate obtained in a). Since both these ratios are less than half, the conclusion drawn here is not only valid but conservative.

NOTE: No attempt has been made to establish the optimum trade-off between poll interval and system loading. Obviously, system capacity will decrease as more resource is consumed in polling, but we have been unable to establish a choke point. Results of a 1000-station emulation will be published in the later article.

2. ARC Bus Capacity.

a. The Network Controller operates by mounting and dismounting volumes on ARC file processors. We had some initial reservations as to the possible impact on other ARC systems of putting this type of loading on the FP's to which the EMS bus is connected. A simple test proved that we had no need to worry.

A DOS file was copied between two FP's both of which were on

the EMS system. This was done five times: initially while EMS was down; and then four times with 50 stations active, with poll intervals set to 1, 2, 10, and 30 minutes successively. Results were as follows:

POLLING	TOTAL TIME ELAPSED
none	4:45
30 minutes	4:45
10 minutes	4:46
2 minutes	4:47
1 minute	4:47

In other words, the total impact on a Disk I/O-bound job, imposed by an EMS controller polling at 50 mounts per minute, was a degradation of less than 1%.

b. The ARCSTAT program was executed at the network master station during the attempted traffic flood test - 2) above. The largest observed data packet rate was only 40 per second, which is something like 3% of the theoretical maximum.

CONCLUSION: An EMS system does not impose any significant loading on ARC, either in terms of bus or file processor utilization; under normal circumstances, it is quite practical to plan to execute normal data processing work-load on a bus which also services EMS.

3. REMARC Test.

Use of REMARC at the San Antonio site provides EMS service to locations which are remote to the network controller, but where there are enough user stations to make dial-up operation a second-best choice.

REMARC was tested in-house, with the data link (a modem eliminator) operating at speeds of 19.2, 9.6, 4.8, and 2.4 Kb.
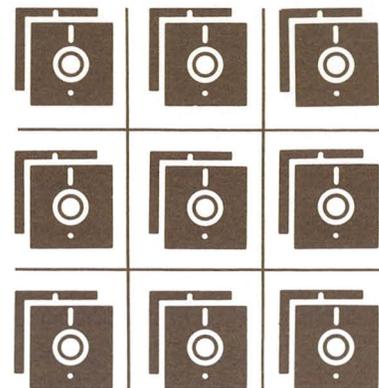
Diskette DOSGEN for 1800/9320 Systems available soon

DSKGEN18 has been pre-released and will be available soon. It provides a method for generating Datapoint formatted DOS.G diskettes (either single-sided or double-sided) on an 1800 processor running DOS.D. This utility was developed primarily for use on 1800s with a single diskette drive and a 93x0 disk (Model Codes 1816 thru 1820).

Prior to the development of this utility, there was no way for a user to DOSGEN a diskette on a single-diskette system. This made the use of COPYFILE rather difficult as an alternative to LOAD18. It also made it virtually impossible for the user to generate software onto diskette for distribution if he had a single-diskette system. All of these situations will now be rectified with the release of DSKGEN18. It will also provide a means to perform diskette to diskette backups on one of those systems.

As mentioned previously, this software is in pre-release. If you have a customer that requires this package, contact us in Product Marketing, Small Systems to arrange a pre-release copy. Notice will be sent out as soon as the software is released.

Carol Muir

New Improved Version of DATASHARE

The gang in development has really been working hard on this one. They have come up with a "spiffed up" version of DATASHARE to replace the original DS41500. This new kid is going to knock your socks off!

To start off with, the new interpreter is going to be called DS1500. Note the conspicuous absence of the "4" in that name. It is by far much better than DS41500 was. There have been numerous improvements made. In fact, here is a list of those improvements and enhancements:

● The internal scheduler has been spruced up -- we are anticipating an effective thruput increase of about 20% over DS41500.

● An extended memory handler has been added to take advantage of the extra memory -- 96K is now supported.

● Virtual storage support for ISAM has been incorporated. ISI files will be memory resident, similar to DS6. Couple this with the 96K support and you will really see some improvement in ISAM handling on the 1550.

● Remember the "minor" performance degradation experienced on the 1500 when you started to use the system printer? Well, the print functions have been incorporated into a separate task as in DB15 for greater printer thruput.

● The following verbs have been modified to make them more compatible with DS5 at the source code level:

-KEYIN	Add *CL, *RV, *DV, *B controls
-DISPLAY	Add *B list control
-INSERT	Allow an INSERT after READ
-BUMP	Allow numeric variable parameter (No more BUMP loop routines!)
-TRAP	Trap function keys
-TYPE	Set EOS flag if null logical string
-PI#	Cancel previous PI if #0 is 0
-PRINT	Allow tabbing by numeric variable
-ROLLOUT	Save processor screen restore upon ROLLBACK

● The following verbs have been added to make DS1500 more compatible with DS5 at the source code level:
  DELETEK
  EDIT
  FPOSIT
  MOVEFPTR
  MOVELPTR
  NORETURN
  PAUSE
  SETLPTR
  SHUTDOWN

● On systems with 96K of memory, DS1500 will run under JOB15 in the DOS partition. That's right, you can run concurrent 3780 or DATAPOLL while you're running DATASHARE. And you now have a real live use for PRINT15 -- it can be used as a real spooler now.

● DS1500 will go through a link edit step after it is configured. This will make much more effective use of available memory by linking in only those features that your customer needs. You don't link in what you don't need. It will also allow multiple versions of the interpreter to exist -- so you can generate as many different configurations as you need, much like you do for DS5 and DS6.

● An entirely new feature has been added -- support for an 8200 off of the ICA. This is especially effective on diskette based systems. You can put an 8200 on the ICA, giving you a two-port system on diskette. Remember the 1558 system we announced a few issues back? That was a 1550 with 64K and two 1403 drives (4MB of storage). Guess what you can do with that baby now! Add an 8200 off the ICA and you have two ports and 4MB for only $15,245.

This little hummer is currently in Beta test. The current (and I emphasize the word "current") expected release date is around mid-September. As you can see, there have been a number of modifications made. The certification cycle will be quite extensive on this product. So there may be some slippage in the release of the product. Don't go selling this package if the deal is going to be dependent on the September date.

But by all means, you should be aware of this future product to help in situations which might not be viable without it. This is going to be one dynamite product. It will make the 1550 one of the most competitive machines in its class. Coupled with the rest of the Datapoint software products (communications, IEOS, EMS, languages, etc.), the various storage and memory configurations available, and the recent release of CP/M from Lifeboat, the 1550 should almost sell itself!

Dan Carmen

CP/M Released By Lifeboat Associates
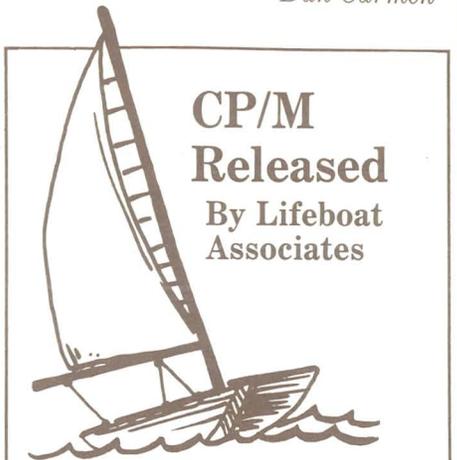
CP/M Operating System for the 1550/2150 has been released.

The first release from Lifeboat Associates runs on machines with 64K of memory and the 14xx diskette drives only. The next release planned by Lifeboat Associates will support the 9310/9320 drive with the 1550 and will also provide support for 96K of memory.

At the present time, Lifeboat is not planning to provide support for the 1542/1543 diskette drives (Model Code 1559/2159).

For more information or to order your copy, contact:

Lifeboat Associates
1651 Third Avenue
New York, NY 10028
212-860-0300
Telex: 6400693

Carol Muir
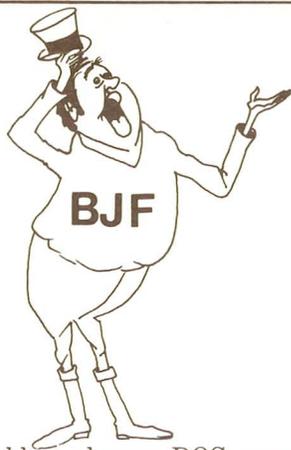
Batch Job Facility: Magic for the 80's

A problem plagues DOS users: processing batch jobs quickly from a central location. In a typical configuration, four DATASHARE processors share an ARC system with one file processor and two 3800's for word processing.

To save cabling costs, system managers often place the DATASHARE AP's out in the organization, making them inaccessible after data entry personnel leave for the day. The 3800's are in the offices of the president and the personnel manager, so they are also not readily available. So what happens is that the systems operator either wastes time jumping from terminal to terminal trying to keep all his batch work running, or another processor is purchased to be placed in the "computer center" along with the FP to run batch. What a waste of power!

Put All Resources To Use In The System

But along comes Mr. Magic, otherwise known as BJF, the Batch Job Facility. As an integral part of RMS, the Resource Management System, BJF allows system administrators to use all of the resources in their systems. The processor is simply rebooted using an alternate configuration and RMS "donates" all of the processor for use in processing batch work at night. Computer operators can submit batch jobs and the BJF controller locates a donated task to run them.

During the day, system administrators can decide whether there is enough "horsepower" left in one of the DATASHARE processors, and if so, donate a task in that processor to run batch. In addition, BJF has a function that will take care of print spooling.

BJF Controls Resources, Facilitates Communication

BJF is a special product for many reasons. First of all, BJF has control over all of the resources that have been donated to the system. That means that UNSPOOL can supervise printers that are not attached to the processor where the UNSPOOL task is running. This also means that if you need to create a magnetic tape but do not have a tape drive on your system, you can submit a job to be run on a processor that has a tape drive. Second, BJF keeps a detailed log of the jobs submitted and what happens to them.

Finally, BJF allows jobs to communicate among themselves. BJF has a facility, called an "event," that can send messages about the status of one job to another job. For example, a typical batch job may consist of four steps. Steps A, B and C must be complete before step D can be processed, but steps A, B and C are independent of each other.

A typical application would be three sorts followed by a merge/list program. But with BJF an event can be used so that all four steps are submitted simultaneously, with step D started only after steps A, B and C are completed. An event can even be instructed to flag the completion of the merge/list program so that the UNSPOOLer starts printing the list as quickly as possible.

This is just a brief overview of the magic of BJF. For more information on this exciting topic, consult the BJF User's Guide, Document Number 50558.

Ted Rohling

Seven Basic Components

The basic components of the BJF system are:

1. The BJF controller (a.k.a. BJF) - the magician who knows where all of the resources are and allocates the various batch jobs and unspooling tasks to those resources.

2. SUBMIT - the program that helps the user place jobs to be run on the request stack. Remember that these jobs are really nothing but CHAIN requests.

3. SPOOL - the program for putting print files in the print queue.

4. EXECUTE - the tool that BJF uses to run the chains. The EXECUTE tasks reside in a processor and make that processor part of the BJF family.

5. UNSPOOL - the printer handler that allows BJF to supervise the operation of as many as four printers at once and there may be many UNSPOOL tasks running in the same network.

5. CONSOLE - the supervisor of the BJF that allows the operator to watch the magic from the inside.

7. CONNECT - the way CHAIN files communicate with the BJF system.

File Management System More 80's Magic

A magician similar to the one we looked at in BJF handles disk records in RMS. This magician delivers requested records to programs quickly and economically using FMS, the File Management System.

To see where FMS came from we must first understand the job of a DOS file processor. Its basic function is that of a sector handler. That is, it keeps track of all of the disk sectors that it has recently used, and if one of them is again requested by an application processor, the processor sends from memory instead of rereading from disk. This speeds up the I/O process of ARC. The function works well for DOS and the basic concept has been expanded for RMS.

The RMS implementation, FMS, allows the system administrator to decide which files will be "managed." Put simply, managing is allocating processor memory to the disk file so that access will be faster than if the record had to be read from disk. So instead of managing sectors without regard to the logical file from which they came (as is done in DOS), RMS manages records from logical files which need managing.

ISAM and RANDOM access files easier to use

This process makes ISAM and random access files easier to work with, but it is not as helpful in managing sequential files. This is because a sequential file's traffic pattern is similar to a river's: to get to the end you must go all the way downstream. That means that your buffers flush out quickly and you get little benefit from the FMS management. ISAM and random files, however, have traffic patterns like that of a demolition derby: the records are attacked from all angles. In normal data processing the chances of a repeat engagement are high, so management is desirable.

What is so magic about FMS? First of all, if you request a record under FMS, a record is all you will get. Under DOS if you request a record from an ISAM file in DATASHARE, DATASHARE takes care of the ISAM request. So the more DATASHAREs in a DOS ARC system, the more overhead. On the other hand, if in RMS you request a managed ISAM record, FMS will retrieve the record from the file and send the record to the requesting program. The overhead in DOS DATASHARE is eliminated.

The second magic factor in FMS is that once the buffer space is allocated in the file manager it is not duplicated in the application program. It takes less memory in the application program to handle managed files than to handle unmanaged files. So if you have many programs accessing the same file, manage it. This will save memory space and time.

Ted Rohling

Three Components In FMS

FMS is made up of three components:

1. CONFGFMT - this program determines the size of the buffer space allocated to file management, the number of files to be managed by the specific file manager, and the number of simultaneous requests that can be handled by the file management task (FMT).

2. MANAGE - this program is used to obtain detailed information on the files to be managed, such as the logical location on the system and the file type, ISAM or DIRECT (random).

3. FMT - the FMT program actually manages the files. Using the output from CONMFGMT and MANAGE, it directs the information flow from disk to memory to application programs and return when necessary.

To find out more about FMS, seek the sage knowledge of the FMS User's Guide, Document Number 50555, chapter 7.
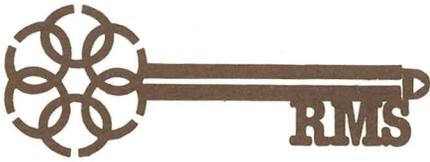
Suggestions for RMS Development Requested

The RMS Blitz program depends on communication from the field to make it successful.

Planning for future development under RMS continues. To help us in that process, the form below has been developed to solicit your suggestions.

Complete the form and send it to Dan Boothe or Terry McDaneld in Product Marketing. As the forms are received, they will be routed to the development organizations for planning.

Status will be made available to Product Marketing as planning is completed.

SE Conference Questionnaires Important

Questionnaires from the SE Conferences are still coming in, and so far, we have shipped 64 belt buckles to those who sent in their questionnaires. Keep the feedback coming! A report of the responses to all the short form questionnaires will be available shortly.

RMS Slides Available

Additionally, the RMS Level 1 Presentation is available now. The slides and outline were distributed during the Regional Sales Manager's Meeting the week of July 6. We also have Level 2 in production and are expediting availability. These slide shows will be available through Software Distribution. More details will follow in the next Datapoint Marketing News.

Bob Harris

RMS SNAP

The unavailability of the RMS System Programmer's Guide has caused the release of RMS SNAP to be rescheduled. Should the need for the product arise, a pre-release copy may be obtained by contacting the Directors of Product Marketing and Software Support.

Bob Stevens

DOS and RMS Demo Packs in Development

Product Marketing is in the process of building both DOS and RMS demo disk packs that can be ordered from the field.

Our goal is to construct demo disk packs that are useful and that have a variety of material ranging from the simple to the complex.

If you have demo programs in any language, games, routines demonstrating utilities' capabilities, or similar material that you would like to contribute to our effort please contact Carolyn Lusk at extension 7151, or Mail Station K15.

Carolyn Lusk

cut along dotted line

RMS FEATURE SUGGESTIONS

Date:_____

TO: Dan Boothe   Mail Station #K15
     Terry McDaneld

FROM: _____ Branch/Region

RMS PRODUCT FEATURE: _____

REASON DESIRED: _____

COMPETITORS WITH SIMILAR FEATURES (if known):
_____
_____

POTENTIAL CUSTOMER(S): Include estimated ISV
_____
_____

New Products Added to Customer Supplies Line

Several new products were added to the Datapoint Supplies product line August 3. The supplies price list has been restructured and a new catalog will be available soon which will reflect these new products, and some new policies and procedures for ordering.

Cables and Connector Kits

Fifteen cables and connector kits will be available through the supplies order channels. The cable and connector kits NOT listed below still must be ordered through regular marketing channels.

These cables and connector kits can be ordered through customer supplies:

Model Code	Description
3403	Cable from Multiport to Model
3450	Kit from Modem to 3600
3451	Kit for Multiport to 3600
3452	Three Twisted Pair Cable
3453	Two Pair Cable
3454	Kit for Modem to 3600 and Printer
3455	Kit for Multiport to 3600 and Printer
3460	RG62 Coaxial Cable
3462	Kit for RG62 Coaxial Cable
3469	Kit for Multiport to Printer
9028	1500 to Asynchronous Modem
9038	1800 to Asynchronous Modem
9040	1800 to Synchronous Modem
9160	1500 to Synchronous Modem
9443	1500 to Printer

Print Wheels

Four new styles of plastic print wheels are being added. Seven styles are now available, as listed below:

Model Code	Description
80271	Courier 72
80271	Pica 10
80272	Elite 12
80434	Courier 10
80436	Prestige Elite Legal 12
80438	Courier Legal 10A
80439	Pica Legal 10A

Static Control Floor Mats

Datapoint is introducing two types of static control floor mats. The one for standing appliction is of soft, comfortable material and comes in two sizes (3' x 4' and 4' x 8') and three colors (brown, gold, green).

The one for sitting applications is made of a durable material which allows a castered chair to roll across it. This one comes in two sizes (4' x 5' and 4' x 8') and is black. All mats are equipped with a ground cord. See the new supplies catalog for more information.

ACD Accessories

The Starset headphone and various accessories are available for use with the ACD.

Model Code	Description
83902	Handset, Plug-Ended
83903	Starset Kit
83904	Eyeglass Clip
83906	Acoustic Tube
83907	Kit, Six Flexible Ear Tips (one each, sizes 1-6)

Cassette Library Case (80510)
Diskette Library Case (80511)

The cassette library case will store eight cassettes. The diskette library case will store ten diskettes.

Disk Pack Carrying Case (80538)

This lightweight, protective carrying case can contain two disk cartridges or one disk pack.

Disk Pack Shipping Case (80539)

This rugged case can contain two disk cartridges or one disk pack. Built to withstand one hundred shipments by plane, rail or truck.

Integrated Office Furniture

Datapoint's new furniture is illustrated in the supplies catalog. However, it is not yet available through the supplies order channels. You will be advised in the future as to when this will be possible.

KSX Accessories

Same situation as office furniture. They are in the supplies catalog but are not yet available through supplies order channels. You will be advised when they become available.

Supplies For New Hardware

Supplies that are used on hardware that has been introduced during the past year have been added to the supplies catalog. These would include the 8800 processor, 1400 diskette drive and band printers.

$250K ISV Results from Home Office Visits

During each of the first two quarters of Fiscal 1981, more than $250,000 ISV closed following home-office guest visits.

A study conducted by Guest Services using data from the field indicates that the average ISV for the year per guest visit was $166.8K.

The figure is artificially low due to the lack of data available for Q3 and Q4, and is based on data received on only 48% of the visits.

Guest Services would like to know the ISV when you get a contract signed after a home-office visit. We'll contact you ninety days after the visit, but a call from you would be appreciated.

Number of Guest Visits Increases

The number of Guest Services Home-Office Visits has increased greatly in the last two months. Forty visits were completed in May and thirty-eight in June. The increased demand on the facility and services most likely will continue.

To make the most of your home office guest visits, here are some tips:

* Give us as much lead time as possible to prepare for your visit. Talk over your visit with the Visit Coordinator.

* Get the background information and requested agenda for the visit to us as quickly as possible. We can't book speakers until we have the paperwork in hand.

* Make sure you know what the customer wants when working up the agenda. Keep changes to a minimum.

(P.S. - We are an extensive EMS user [G001]. Use this valuable service where possible to submit your background visit information to Guest Services. We have the Visit Request Form in WP and will provide it through EMS upon request.)

Harry Spillers

IEOS/WP 1.3.2 Resolves Buffer Problem

The problem of insufficient buffer in the cache memory in the 1.3.1 release of IEOS/WP has been repaired through a second release, 1.3.2 IEOS/WP.

The error message in 1.3.1 is "INVALID FALSE ASSERTION", which should not be confused with previous reasons for this message to appear (two people signing on under the same sub-directory under IEOS, and power outages).

Customers should be advised to reorder this software as soon as possible, in an attempt to prevent this potential problem.

There are several patches available on the Software Problem Reporting - Fix System that may be of interest to you and your customers. One corrects the operation of the RECOVER command. The other relieves the problem of excess burst pages when using IEOS.

If you are unfamiliar with the Software Problem Reporting -Fix System, ask your System Engineer for assistance.

Shannon Neal

	Q1FY81	Q2FY81	Q3FY81	Q4FY81	FY 81 TOTAL
Total ISV Reported	$ 10,979K	$ 12,589K	$ 9,947K	$ 6,587K	$ 30,523K
% of Visits w/ Reported Data	86%	84%	23%	.05%	48%
Avg ISV per Visit Reported On	$ 292.8K	$ 320.9K	$ 548.9K	$ 700.0K	$ 346.9K
Avg ISV per Total Visits	$ 251.8K	$ 268.8K	$ 126.7K	$ 31.8K	$ 166.8K

Special Report

Evolution of Local Networks

A discussion of the four generations and types of local networks and their implications in growth and application of commercial automation.

All Local Networks are not equal.

No serious computer user would equate a modem as the heart and soul of a data communications network. It is simply a hardware element - but these same users are looking to a coaxial modem, the local network, as the heart and soul of the electronic office. It isn't; it's a component.

What the Local Network itself amounts to is a high-speed, short haul multi-dropped party-line link to which all kinds of electronic machinery can be attached.

Remember the pnuematic tubes the department stores used to shuttle slips of paper around in? The fundamental principle of local networks is much the same--except now we're using the digital packets of information rather than the hand written sales slips, and it is a heck of a lot faster.

Local Networks and Their Uses

The original intent and goal for the actual coaxial pathway has been to offer an easy and fast way to link computers and other electrical devices and thus provide a method of communicating with each other without having to resort to clumsy data communications "modem eliminators" and other tricks.

Why Coax?

To an engineer coaxial cable is real magic; unlike twisted pair wiring or braid or ribbon wire, coax maintains constant low level capacitance, no matter (theoretically) how long the line is, thus avoiding a world of technical problems such as echos and severe distortion of the signal. It is this electrical feature that permits high speed data rates, much higher and for longer distances than possible over other types of wire.

Coaxial cable has been used for years in television, radio and other high frequency signaling applications; it comes in hundreds of varieties and its cost, at least for the garden variety types, is low, ranging from 15 to 50 cents per foot.

Baseband or Broadband?

To local network aficionados, the method of placing data on the coax itself is of deep interest. Electrically pulsing the cable directly as with a voltage or current switched on or off is called baseband signaling. Dividing the signaling into allocation slots, such as cable TV, is known as broadband.

The terms are almost the inverse of their ability. Baseband uses the entire capacity of the coax and achieves a high effective throughput with straightforward circuitry.

Broadband uses relatively complex multiplexors to subdivide the coax into smaller channels of lower capacity. It is these multiplexors that allow a cable TV system to carry 25 channels of television. The drawback to broadband lines is the expense of the multiplexors and their tuned analog circuits. Since television is an analog media, broadband is the only way to go, where baseband is a natural for digitally oriented computers or digitally oriented signals.

For a computer's digital signaling technique, which can be easily broken into packets and burst down the line, baseband has the advantages of also being simpler, with no tuned circuits to raise the cost.

What About Speed?

Absolute speed has its attractions, but a price in complexity and error rate. (Asked which was faster his Ferrari or his VW, the man confessed, the VW - it starts.)

The real goal of a well-designed coaxial carrier is to get the data moving so fast without delay that its data rate becomes insignificant to the rest of the system. For example RIMs on a Datapoint ARC have a data rate of 2.5 million bits per second and can keep that rate up to approximately 1000 bus transactions per second.

A true measurement of speed can be expressed in how many transactions (find something, change something are transactions) per second a local network can handle.

Datapoint ARC (RIMNET and the ARC software together) can handle about 1000 transactions/second with no noticeable bus delay; the RIMNET itself can transfer many more transactions/second but at that rate there is no delay in serving user requests.

What that translates to is a complete bus service time (processor to processor) of about 3/1000 of a second. Considering a disk takes about 70/1000 of a second to find something, that results in less than 4% overhead. ARC is designed to have no delays or contention.

First Generation Local Networks

Datapoint first constructed a working coaxial network as Project RIMNET in 1975. The signaling techniques evolved as a careful series of experiments by the R & D staff who had wide experience in high frequency transmission designs.
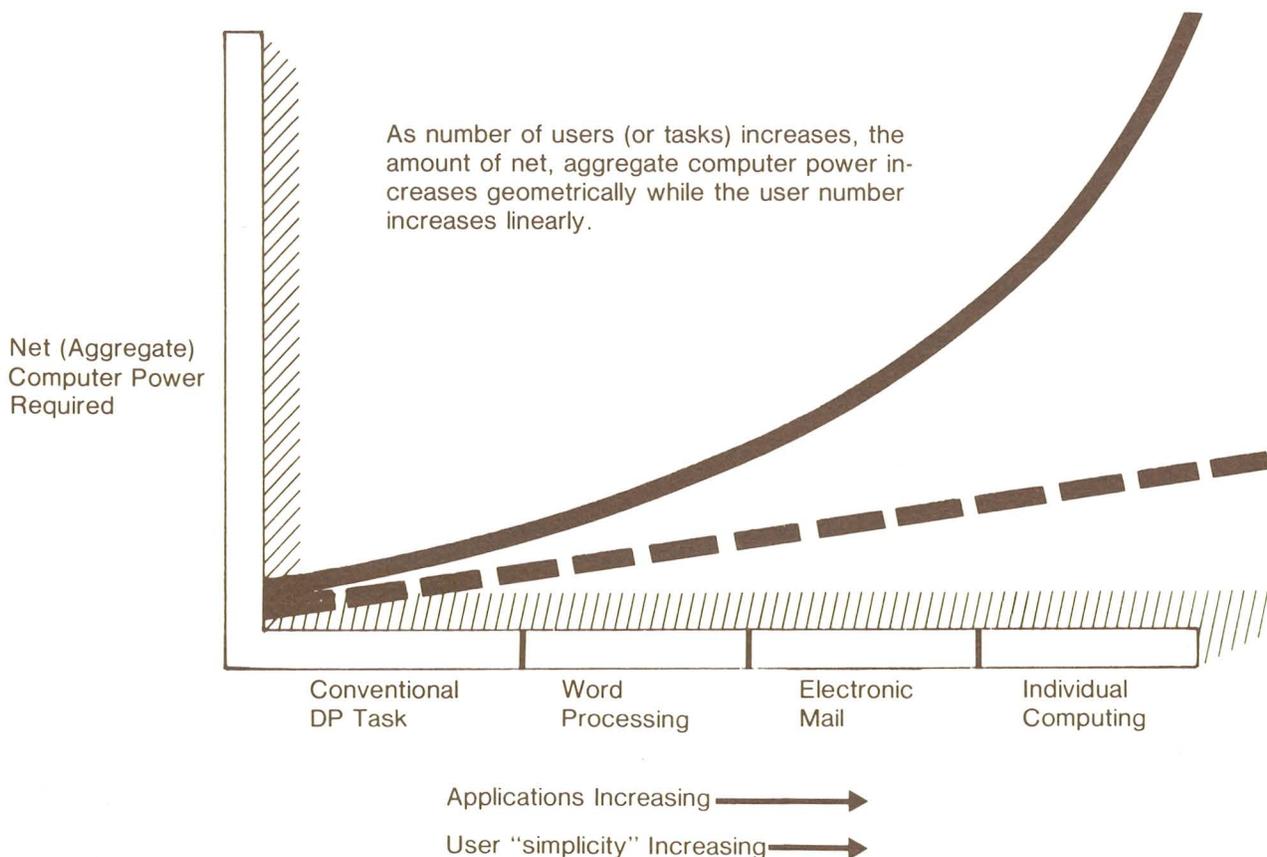
The signaling method (which still has not been made public) was so successful that it was decided that an entire computer architecture could be built using this coaxial channel as an extended serial I/O bus connecting computer elements at internal I/O bus speeds.

With this high speed bus, so fast and with a very high degree of availability to participating devices, two ideas formed:
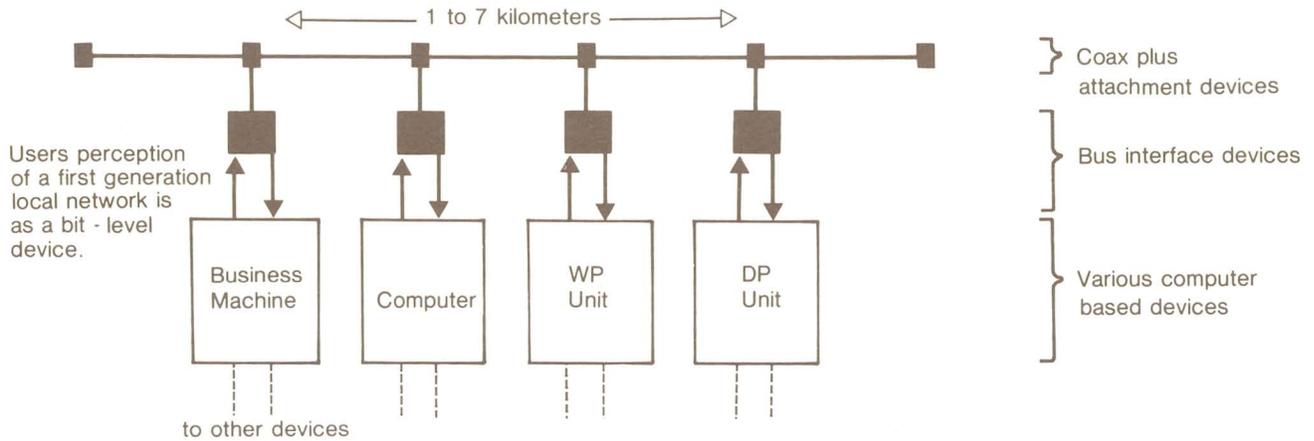
- A modular computer could be made with the aggregate power increasing with the addition of each new element.
- The pieces of this modular computer could be placed where needed.

The Electronic Office and Computer Power

An early observation showed that as the number of user oriented (simple to use) and non-conventional computer tasks such as Word Processing, Electronic Mail and individually available computing resources were added, the requirement for computer horsepower went up exponentially.

As number of users (or tasks) increases, the amount of net, aggregate computer power increases geometrically while the user number increases linearly.

Net (Aggregate) Computer Power Required

Conventional DP Task — Word Processing — Electronic Mail — Individual Computing

Applications Increasing ⟶

User "simplicity" Increasing ⟶

First Generation Local Network

← 1 to 7 kilometers →

Coax plus attachment devices

Bus interface devices

Various computer based devices

Users perception of a first generation local network is as a bit - level device.

Business Machine | Computer | WP Unit | DP Unit

to other devices

First Generation Local Networks

Intelligent device-to-device links
Direct addressing
Each device stand alone
Multiple device types

Characteristics:
Point to point data transfer
Direct device addressing, assembler code addressing
User view:
Direct receipt of data packets
Assembles a complex software to receive
Example: Ethernet

Primary Application:
Local, short haul, communication between stand-alone or specialized purpose devices. Office or factory environments.
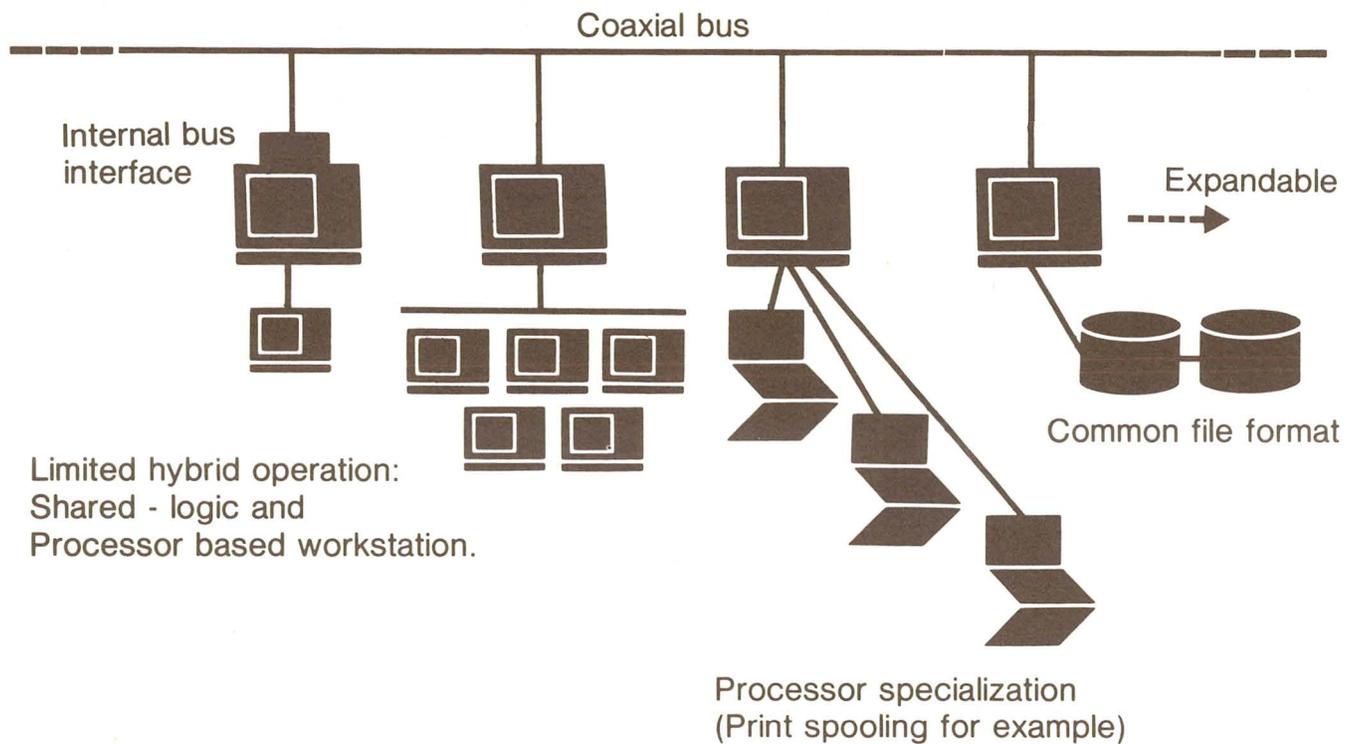
The basis for this assumes that the computing facility built operates as a single cohesive unit and not as a series of independent, computing devices.

With these basic goals, the coaxial cable could then support the development of an effective working electronic office.

User Perception of Local Networks Through Generations

First Generation
- device oriented

Second Generation
- processor specialization symbolic access

Third Generation
- resource sharing

ISX

Fourth Generation
- Integration voice/data hybrid coax plus 3-wire terminal user independence

Second Generation Local Network

Coaxial bus

Internal bus
interface

Expandable

Common file format

Limited hybrid operation:
Shared - logic and
Processor based workstation.

Processor specialization
(Print spooling for example)

Typical System: Datapoint DOS/ARC

Second Generation Local Networks

Common files, language transparent
Logical file addressing
Multiple user access to files - shared files with
   solution to "deadly embrace"
Built in bus interfaces
Processing nodes dedicated to functions
Geographical dependencies - local nets 10 miles

User Perception:
Each module appears as if disk
is local, has access to "utility"
resources such as print spooling,
telecommunications

Characteristics:
Host-free (non-autocratic) operation
Automatic reconfiguration
Error checking, auto recovery
Common database, expandable
Private database optional
Common file format - all languages, all utilities
Devices may perform any task
Symbolic access to all files

Primary Application:
Small to medium size computer
Multipurpose workstations
(DP, WP, EMS)

For Internal Use Only

Third Generation Local Network

Voice Facilities Controller

to other computer
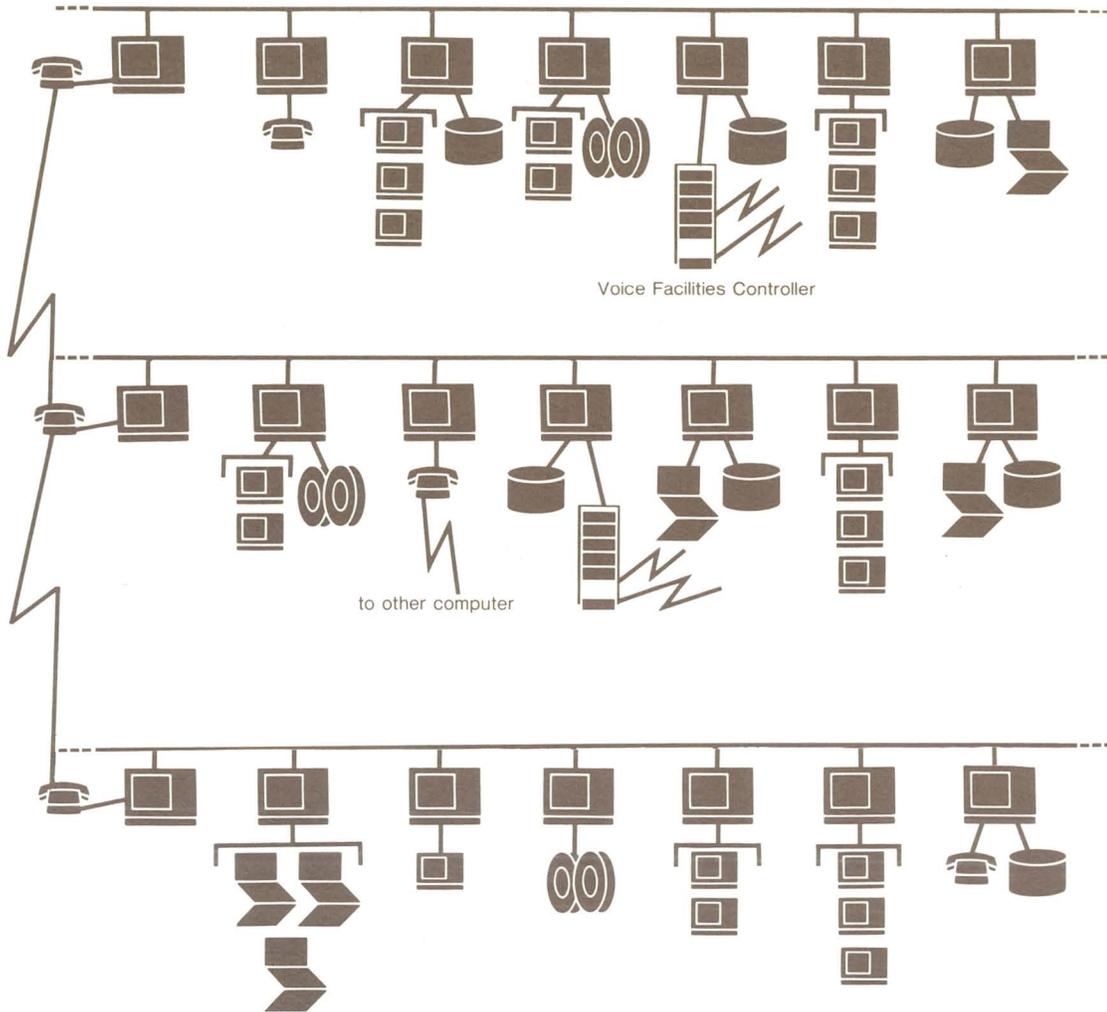
Typical System: Datapoint RMS/ARC

Third Generation Local Networks

Resource sharing
Logical addressing for all resources -
    processors, peripherals, files
Geographical independence - worldwide nets
Functional independence - amorphous
    configuration defined at execution
Multifunctional nodes

Characteristics:
Ability to use all resources
    in local network
Dual file processor, application
    processor role
Accessibility of all resources in network
Concurrent tasking common
Resource sharing
Simplified, symbolic access to all resources
Transparent geographic networking (not user
    usable)
Boundary (local or geographic) transparent

User View:
Easy, symbolic access to all resources
Programming simplified
Full support (WP,DP,EMS) on non-intelligent
    terminals

Primary Application:
Complete IEO structure
Modular computer power growth
Economical use of peripherals
Control of voice telephone facilities

Fourth Generation Networking
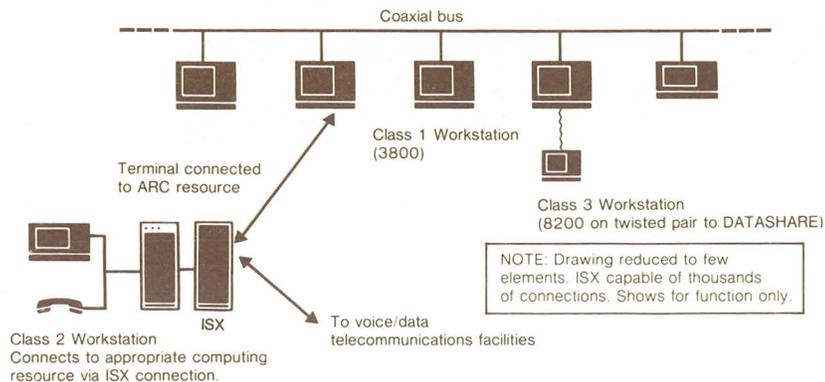
Coaxial bus

Class 1 Workstation (3800)

Terminal connected to ARC resource

Class 3 Workstation (8200 on twisted pair to DATASHARE)

NOTE: Drawing reduced to few elements. ISX capable of thousands of connections. Shows for function only.

ISX

To voice/data telecommunications facilities

Class 2 Workstation Connects to appropriate computing resource via ISX connection.

Fourth Generation Local Networks

Topology independent
Integrated voice and data nets
Volume/load balancing of access based on telecommunications economics

Characteristics:
Complete integration of voice and data
All signals in digital form
Voice (digitized) switched
Data switched
Hybrid - telephone (3-wire) or coax depending on work load
User transparency to either user
Least cost routing, data
Least cost routing, voice

Signaling Method:
Non-blocking digital data

Primary Application:
Integrated Electronic Office
Voice
Data

Boundary Transparency

Local networks are just that; but the reach of a user must extend far beyond the local network to other geographically extended remote installations or users. DOS/ARC does that via batch or interactive communiations. RMS/ARC extends that by making all data transfers a series of pipes. Now, under RMS/ARC, it makes no difference whether a resource is attached via a local network, a telecommunications facility -- the connection is simply achieved.

With this, the boundaries of the network itself become transparent.

Resource Sharing

While the computer becomes less expensive, the peripherals become more expensive. The ability of DOS/ARC and especially RMS/ARC to symbolically access computer resources without complex programming becomes extremely valuable.

Peripherals become more useful, and easier to use.

A Solution in Search of a Problem

While the rest of the industry has vociferously discovered the local network and occupies themselves with marketing first generation concepts and promising second generation capabilities, Datapoint has methodically moved into third and fourth generation networks.

DOS/ARC has features that the major competition can't come close to, and the addition of RMS/ARC places the range of capabilities beyond what magazine writers are calling for the future.

Today, only Datapoint has the hybrid ISX/ARC configuration that will become the hallmark of the electronic office, where voice and data facilities are tightly and economically merged.

Again, a Pioneering Sell

In 1970, no one knew that dispersed processing was the trend of the future.

Today, Datapoint has shipped well over 1500 second generation local networks, has begun third generation installations, and within a year will install fourth, with voice and data completely integrated.

We are far ahead of the crowd with our technology.

Gerry Cullen

Electronic Mail as Total Communications

A sentiment says that electronic mail is for memos, text and correspondence. It is not. EMS is the next generation of data communications.

From Datapoint's view, Electronic Mail should send everything. If it can be stored on a disk, then EMS should send it - and for those who enjoy a game of Carnak, the answer to the question is Graphics and Facsimile.

The Envelope Dilemma

Ever heard the complaint "Your printers are hard to stuff envelopes into"? You've got some selling to do for the goal is to get rid of the envelopes. That is what Electronic Mail is about.

An Electronic Mail Success Story

There are thousands of pages of text testifying to the virtues of WP. What about Electronic Mail?

First of all, let's say that nobody has come up with an EM package that is nearly as slick as Datapoint's. Some reasons:

1. It will work on the complete product line, 1500 to ARC.
2. The WP/DP common file feature means it isn't a separate system - it is part of the whole computing/WP/data communications resource.
3. It is easy to use - (AIM strikes again).
4. Messages (anything) can be sent via the local bus or over phone lines.
5. EM takes care of itself.

Datapoint began an ambitious EM installation program in early 1981. The 30 plus buildings in San Antonio posed a mail department's nightmare compounded by continual movement and office rearrangement. Since many departments already had WP and a substantial ARC-based DP installation linked many departments for the company's accounting and order management function, the task was reduced to linking the buildings via coaxial cable, optical links or experimental digital microwaves.

Approximately 1000 personnel were to be linked eventually.

Surprising Results

The project proceeded quietly with various memos issued defining addressee lists and network budgeting. Training was supplied by one system MSR and the EM documentation itself (although some advantage was obvious in having a technically oriented emloyee base and heavy WP experience at the clerk and secretary functions).

As the network grew, and buildings linked, the project still remained a quiet, almost invisible effort. The MSR visited offices to offer training and advice, but the number of potential users far exceeded any ability to seriously train each potential user.

The Critical Mass

At some point, people who send mail noticed that the list of people who could receive electronic messages far exceeded those who could not - and the EM system went from back room status to the hottest topic of interest.

- Guest Services could send the speaker schedules in 10% of the time required.
- Secretaries could set up meetings and send agendas in minutes.
- Mail became easy.
- You did not need envelopes.

But the surprising thing was the critical point at which the actual "thing" took off - until there were enough people to talk to, no one even noticed it. One user pointed out that unless you can mail to everybody (and send what you need sent) it is like having the only telephone in town. Technically interesting, but it had limited use.

100%

number of mail
(messages) sent

number of users

n

n = total number of people in campus
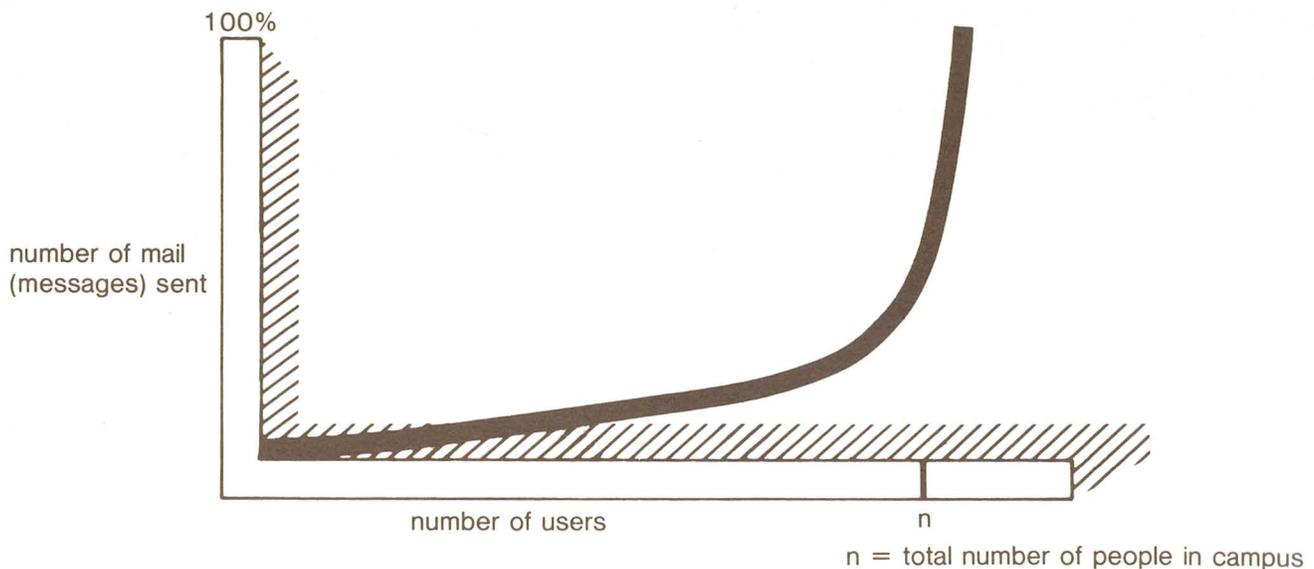
The curve shows that until everyone can get on the tube and mail things, it does not work. And when that happens, no one cares about envelopes (unless it has got to go outside the EM users).

Which is Really Bad News
Really bad - because until the magic critical number of users is reached, nobody really cares about how wonderful, time-saving and better-way-of-life EM can be.

What they worry about are screen menus, keyboard layout, disk space, MSR availability and cost.

Which also means the poor souls who have to put up with EM pilots are going to need a case of Valium and the courage of a Central American missionary.

Which is also completely backwards. Once the critical number hit on the Datapoint EM "thing", nobody complained about anything. Not the news, not the screen layout, not the documentation, nothing. (Nobody had any documentation to speak of and nobody cared.) Because it worked, and it made life a lot easier.

How to Sell It
Selling EM now will be tough. Alex G. Bell did not pilot his phones because he understood the curve - he just started installing like mad.

You probably won't have that luxury - your customer will want to connect something like 1/2% of his company to see how they like it. The will be apathetic, guaranteed. Because it does not do something for them.

There's only one solution today - find a real completely connected EM/WP ARC customer or drag them into San Antonio and ask any secretary how she feels about EM. Ask Guest Services. Ask the Customer Service guy how the users view slow response time when an inbox-outbox disk dies -- it becomes a vital part of the operation, not just a side benefit.

### EMS - Data Communications of Tomorrow - Today!
Every vendor has WP in one form or another, but only Datapoint has an EMS that can completely link an active organization together and even reduce the telecommunications department by clerks and secretaries!

Try understanding and explaining the concept sometime to one of your brightest and most radical prospects.

If he/she can see it, you will have a chance at building the biggest ARC ever seen.

Gerry Cullen

How to Fight Nasty WP Sales Arguments
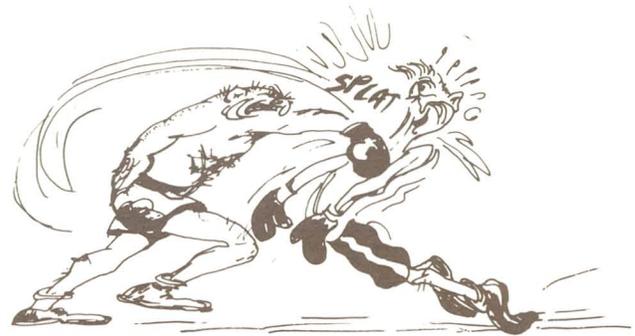
When marketing a particular product such as IEOS, it is helpful to know how you measure up to your competition. What better way to find this out than directly from your competitor?

Recently an article came in from the field concerning a comparison of our word processing system to another available on the market. A competitor took a good look at our word processing system, compared it to theirs, and published the results. Datapoint wants to set the record straight.

WHAT THEY SAY: There are several reasons why it is difficult for the average typist to use the word processing function on Datapoint systems. Specifically:

Special Function Keys
There are no dedicated special function keys for text editing. Certain keys may be coded for text editing functions, however they are not labeled and the operators must memorize which key accesses which function. For the majority of text editing functions the entire name of the function must be typed in to access the function (i.e. if you wish to replace, you must type out the word REPLACE). This slows down text editing because of the large number of keys that the operator must type to access a function.

THE TRUTH: There are five keys dedicated to special functions. These are variable functions assigned by the operator to allow total flexibility of functions to the operator. These keys are labeled F1 through F5. An operator's memory is not a problem here as these key functions can be reviewed through the primary format. Function keys set up in secondary format are in effect only for the time of that edit.

Datapoint word processing functions are based on as few keystrokes as possible, therefore one does not have to key in the complete function name but only enough characters to make the command unique. For example, to REPLACE (since there are no other commands beginning with "r"), the only character needed would be "R". Therefore to replace all characters ABC with CBA the command would look like this: (command key) r abc (insert key) cba; a total of 9 keystrokes. The typing speed is increased by this abbreviated command sequence because the typist's hands do not leave "home position".

Prompts on the Screen
THEY SAY: There are no instructs (prompts) displayed on the screen during word processing. Prompts are very powerful learning aids when the system is new to the operators, and they always provide a visual verification of the function that is being done at the time.

THE TRUTH: There are prompts displayed for specific functions such as backspacing, inserting and deleting. A good and complete Simplified User's Guide is as powerful a learning aid as prompts, is less confusing and eliminates clutter on the display. In IEOS 1.3 release, the "HELP" command has been implemented, which allows an operator to display a full detailed explanation of most menu commands.

Global Search and Replace

THEY SAY: The global search and replace function is somewhat limited and is difficult to use.

THE TRUTH: The only limit to the search and replace function is the length of the old and new character strings. This limit is due to screen display size only. You have 77 positions for this use after the mandatory "r" and "insert" commands. These 77 positions can be used in any combination of old and new replacement characters.

There is very little difficulty in using the replace command; for a global replace of specified characters just initiate the command at the beginning of the document. This can be found in the Simplified User's Guide.

Sorting in Word Processing
THEY SAY: There is no word processing sort. As a practical matter, this means that all sorts must be done by a computer-type person. This could make simple office tasks such as maintaining the firm's phone directory difficult.

THE TRUTH: Although Datapoint does not have a WP sort yet, modifications to documents can be done in word processing that will facilitate a sort in DOS. With Datapoint's DATASHARE a sort can be done, then documents brought back into word processing easily by a word processing or non-computer person. Datapoint also has a

very nice Telephone Directory Package that is useful for the task mentioned.

Word Processing/Data Processing Interface

THEY SAY: Poor word/data processing interface. If you extract information from a data processing file, you cannot edit it in a word processing mode. This limits the flexibility in terms of formatting.

THE TRUTH: Wrong! Any data processing file can be brought into word processing and edited just like a word processing document. The reverse is also true. A word processing document can be extracted with or without the word processing attributes (formatting information) to a DOS text file.

Setting, Changing Format

THEY SAY: Setting and changing formats (tabs, margins, etc.) is difficult. In fact, the editing commands that you use to set formats are different from those used during ordinary word processing. This makes the system more difficult to use because there is more for the typist to memorize.

THE TRUTH: There are two ways to set formats. First is the primary or default format. The default format is a standard format used throughout the library. This primary format can be designed at document creation as a special format used for specific types of documents (i.e. legal forms or standard letters). It can be changed at any time but is rarely changed except for special needs.

Secondary formats are for formating changes within the document, such as insetting, tab changes and margin changes. These include the same format commands as the primary, plus extras such as boldfacing, underlining, super- and subscripting and many more. All formating commands are treated in the same manner whether in primary or secondary, so once the user has learned the basic command sequence, the rest is plain English. A word to the wise: there are several ways to create and use different default formats.

Storing and Retrieving Text

THEY SAY: Repetitive text is difficult to store and retrieve. This is particularly important for law firms, from our expertise.

THE TRUTH: The %MACRO command, which allows the user to pull in another document to be placed into the one being modified, is extremely useful and quite efficient for boilerplate verbage (which would reside in the library as separate and distinct documents to be used when needed). Also, the cut and place works well for repetitive text. By the way, in the 1.3 release there is a whole new archival and filing system that will
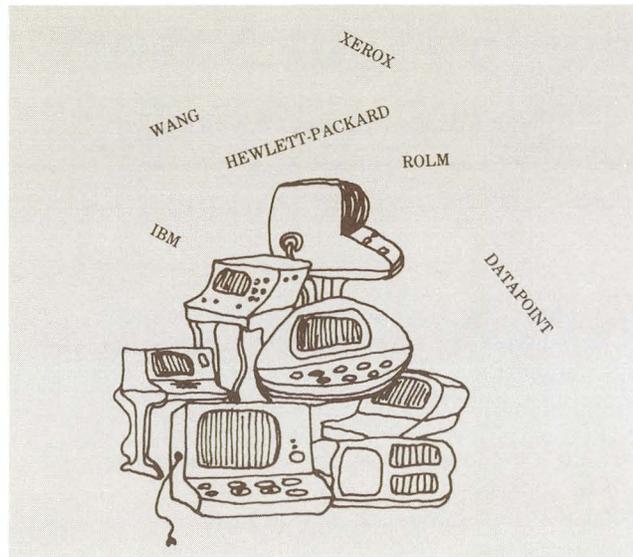
allow movement of documents to other libraries such as historical libraries for later use.

Cost of Workstations

THEY SAY: The cost of the workstations is very high. The Datapoint workstation that is necessary to access word processing costs a minimum of $6,800. A workstation on the Wang VS, which is capable of both word and data processing, costs $4,300.

THE TRUTH: There is a saying that "Power is directly proportional to cash." In this case, just how powerful is the Wang VS workstation? Thes Datapoint workstation is capable of word processing. It can support communications, non-intelligent terminals, printers, some foreign devices and a wide variety of languages and protocols (a computer itself!).

Observations from Demonstration

THEY SAY: We keep issuing discouraging words about Datapoint's word processing, but Datapoint doesn't seem to have gotten the message -- it's still managing to convince a lot of prospects that it has an integrated system. We decided to see for ourselves, so we attended a demo at a customer site. We came away with the conclusion that everything we had said before was true, and discovered a few more points that we hadn't known about before. If you still need ammunition, here are some further first-hand observations:

Although most of the commands must be typed in, a few keys can be coded to perform certain functions. However, since they're not labeled for those functions, the operator has to memorize which key does what. Even cursor control keys are labeled on the "integrated" workstation. They are part of the numeric pad and are used as cursor control keys in the ordinary operating mode, but fill in as numeric keys when used in conjunction with the shift key.

THE TRUTH: As stated before, commands can be abbreviated. Because of the diversity of functions that can be used with the F keys, more specific labels would be too limiting. These are operator defined, so the operator should have no problem remembering; if so they can be reviewed in the primary format. So not to burden the operator with a multitude of function keys, the cursor control keys were placed on the 10 key numeric pad. This allows for more multifunctionality of the keyboard. These cursor control keys are clearly labeled with direction arrows over the 2, 4, 6 and 8.

Format Revision

THEY SAY: Format revision (for which, of course, you have to type in FORMAT to view format and print specifications) requires a lot of keystroking for what should be an easy function. Furthermore, format and command graphics can only be displayed in highlight mode. While in this mode, editing commands and keystrokes are different from those used in normal text editing. The operator therefore must learn two methods of operation to perform a particular function.

THE TRUTH: Format is no different than any other command; it can be abbreviated. Primary formats are not viewed in highlight. These come up automatically in 1.3. Secondary formats, however, must be reviewed in highlight mode. There is no difference in the editing of text while in highlight mode, except that highlight displays the format attributes. Again, this way the display screen remains uncluttered.

Associative Index Method

THEY SAY: AIM (Associative Index Method) files are usually created when a library is created. If it is not done at that time, according to the operator who gave the demo, a packup can be performed to create the AIM file. She said that it was a very time-consuming process. AIM files can only be created on libraries, not on individual documents. To begin an AIM search, you must be at the main menu, not within a document.

THE TRUTH: AIM files can be specified at the time of library creation They may also be specified during a packup. In pevious releases, packup was somewhat slow; however the new release will show significant increases in packup speeds. If you understand the concept of libraries, you will know tht by AIMing a library all documents in that library are also AIMed. You cannot AIM a library without AIMing the individual documents within.

LOCATE and SEARCH are initiated from the main menu so you can search iether the entire library or a particular document. This is at the discretion of the operator.

THEY SAY: The operator informed us that an AIM file occupies 20% more space than one which is not AIMed.

THE TRUTH: The actual is 12%. The overhead is required for the AIM indexes. This proves to be quite efficient for large libraries and actually takes less space than an ISAM index on a DOS text file of the same size.

Extracting from Data Processing

THEY SAY: Word processing documents can be used to create a data processing file, but the word processing codes will remain intact within the text. Also, if you extract information from a data processing file to be used in a word processing document, that portion of text cannot be revised in word processing mode.

THE TRUTH: Yes, word processing documents can be used to create a data processing file, but the operator has the option to carry over the word processing attributes to the DOS text file. Any data processing file brought into word processing can be edited just as any word processing document.

Repetitive Keystrokes, Password Security, Recover

THEY SAY: Repetitive keystrokes or command sequences can be created as part of a data processing file. Prompts and error messages cannot be a part of the commands.

THE TRUTH: Some command sequences can be set up through a DOS chain file. Since prompts and error messages are handled by the system none is needed as part of the commands.

THEY SAY: Password security is available on libraries only, not on individual documents.

THE TRUTH: Security is at the subdirectory level. Without the proper sign-on information, an operator could not get into the ARC system. Security at this level allows more operators access to the system at any given time.

THEY SAY: An unlock feature prompts the operator when a document has been damaged, but will not automatically recover that document.

THE TRUTH: It is the operator's option to recover a document, and recovery is accomplished by a few simple commands and keystrokes.

Autotype, Headers and Footers

THEY SAY: We were told that to set up the parameters or control files in "autotype" is very complicated.

25

THE TRUTH: Once the autotype procedure is learned it works well. There are some limitations that will be corrected in the future. We should see good response from autotype in the new release.

THEY SAY: *The operator believed that Datapoint-style WP was difficult to learn and use. We have another report which confirms this. We won against Datapoint in another situation after Datapoint and Wang WP terminals were set up side by side for trial. After a day or two, the Datapoint system was never used. As for AIM, we were able to write a glossary that performed all of its functions.*

THE TRUTH: The question here is: Were these strictly word processing installations? Datapoint is not in the stand-alone market for word processing installations. Datapoint's strengths lie in the multifunction, integrated marketplace and we have proved this time and time again. Datapoint has won out over Wang in many very large word processing only installations. As for their glossary-type AIM, I would have to see for myself whether their glossary could perform all the functions of AIM.

As a closing note of confidence, this article and all of *Datapoint Marketing News* was processed on Datapoint's word processing system, IEOS. Also, it is very encouraging to know, if we ever have a hardware problem Datapoint provides professional, timely maintenance service with a track record that backs up our claim.

Dan Boothe

A soccer team at the University of Utrecht, Holland sports Datapoint T-Shirts. The university has installed an ARC system.

Kit Announced to Upgrade 1500 to 1550 System
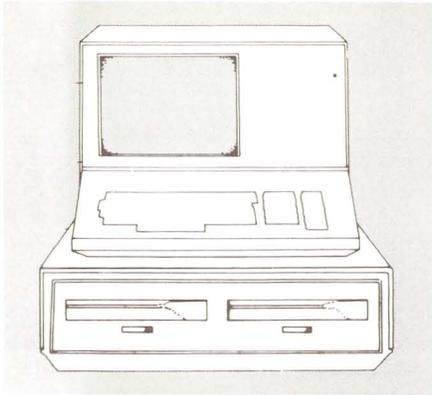
An upgrade kit is now available to convert purchased 1500 systems to 1550 systems. The kit accomplishes a processor level upgrade to the 1500.

The Z80 2MHz processor will become a Z80A 4MHz processor with all of its speed. For example, an upgraded 1532 system will become the functional equivalent of a 1559 system. This is a processor upgrade -- the diskette drives do not change. Model Code and U.S. pricing is as follows:

Model	Description	List	4-10
11-25	26+		
0569	Upgrade 1500 to 1550	$ 2500	$
2375	$ 2125	$ 2000	

Installation is $165.

There is no additional maintenance charge for the upgrade kit -- the 1532 and 1559 systems have the same maintenance rate. Both systems have monthly maintenance of $60(U.S.).

If you have any customers with purchased 1500s who would like to have the extra performance of the 1550 but didn't know how to do it, this is the perfect solution. For a minimal charge, they can effectively double the performance of their processor.

This upgrade kit is available now. Lead time is 8 to 10 weeks.

Carol Muir
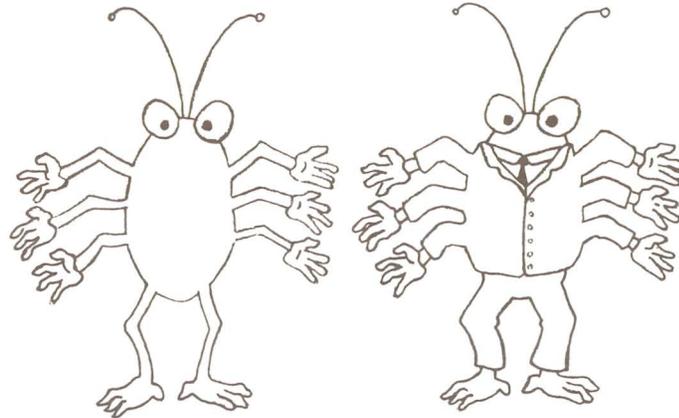
A BUG   A FEATURE

drawing by Phil Wadler

From Software Services: Resource Management System Information Roundup

There are many questions regarding RMS documentation, documentation model codes, prices, kits, etc. Therefore, the following is to "clear the air" and help you in ordering RMS User's Guides.

Model Codes - What Are They? How Much Do They Cost? (U.S.)

50553 . . RMS Volume I $ 4.00

50554 . . RMS Volume II $ 24.50
This volume includes RMS BASIC utilities. These utilities are listed in

50555 . . RMS Volume III $ 22.50
The third volume in the RMS library "kit". Consists of ADVANCED utilities. Again, these individual utilities are listed in the "pink sheets".

50597 . . RMS Volume IV $ 10.00
Remember the CHAIN User's Guide (50586)? This is it! Now called Volume IV, incorporating technical changes which are effective immediately and will remain in effect until further notice.

50545 . . RMS Volumes I-IV $ 61.00
We make it easy. This is the whole kit. By using 50545 model code, you may obtain all volumes listed above.

Pink Sheets and New Software Catalog Available

The updated SOFTWARE, DOCUMENTATION, SUPPLIES, AND PRICE SCHEDULE (Model Code 60231) and the glossy SOFTWARE CATALOG (Model Code 60000) are now available from Software Services. An order placed today for the listed Model Codes will bring you the new versions.

Both documents have undergone major revision. The software Pink Sheets now include RMS, a new section for the 1500, and the Integrated Electronic Office software (the Word Processing, Electronic Message, and Voice Communications Management systems). The incorporation of all the software into one document provides striking evidence of Datapoint's unique attainment as the only vendor who can deliver the Integrated Electronic Office, running on compatible systems of arbitrary size, today. The proof of our claim is here in black and pink, for everyone to read.

The new Software Catalog is arranged in the same order as the Pink Sheets. If the reader desires more specific information than is provided in the listing blocks, he can look in the Index and find the page in Appendix A (which is a copy of the Pink Sheets) that contains the current version, release date, model codes, media, and so on, for the item of interest. Prices are also included in Appendix A.

Martin Fishel
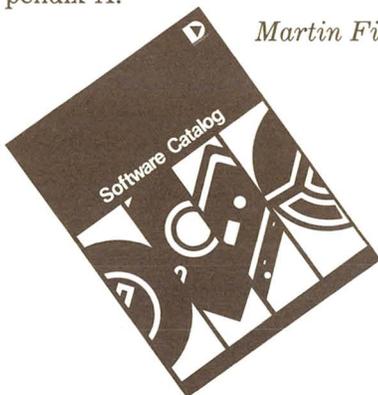
Introduction to Datapoint and Computers Seminar

Customer Education, with the assistance of Gary Voight, Detroit, has created a two-day "Introduction to Datapoint and Computers" seminar. The seminar, for managers and supervisors, was developed to answer these questions:

* What are computers?
* What do they do?
* How will they impact my department, my employees, my job?

The topics covered are:

Introduction to Data Processing
Overview of Computer Systems
Symbolic Language
Languages and Their Uses
Modes of Processing
Attached Resource Computer

This class was presented in Detroit and was, we believe, very successful. We would be happy to discuss presenting the class for one of your customers. Call Peg Dolan, Customer Education, extension 7039.

ERRATA

The IEOS 1.3 article in the July issue mistakenly listed an installation guide for IEOS on the 1800 (Model Code 50515). This installation guide has been discontinued.

The IEOS 1.3 installation guide is contained on the utility diskette and can be obtained by printing out the file called IEOSTART/PRT.

DOUBLE-SIDED DISKETTES A SAVINGS ON THE 1800

The availability of the new 1413 double-sided diskette has proven to be a significant savings for many 1800 users.

To equip the 1802 or 1804 systems with 2MB of storage would cost the user an additional $4150 (U.S.), for an extension 1842 drive. But the price of an 1812 or 1814 system is only $1795 (U.S.) over the price of the 1802 or 1804. So the user can get the desired extra 1MB of storage at a savings of $2355.

To add an extra 2MB of storage to an 1812 costs only $1645 (U.S.) more than what it costs to add 1MB to an 1802. That's right, the 1413 is only $1645 more than an 1842 -- 100% more storage for only 40% more money. Such a deal! The price per megabyte goes from $4150 (U.S.) on the 1842 to less than $2900 (U.S.) on the 1413. That's an improvement of 30%.

Look at the total cost of an 1802 with an extension 1842 ($15,125 U.S.) compared to the total cost of an 1812 with an extension 1413 ($18,565 U.S.). A difference of only $3440 for 2MB more storage.

And how about the 0105 option on the 1800/93x0 systems (Model Codes 1816 thru 1820)! Twice the diskette for a mere $650. What a steal! The 0105 option significantly enhances the total system. Each logical drive can be backed up onto 3 double-sided diskettes instead of 5 single-sided diskettes. That simplifies the backup procedure, as well as speeding up the entire procedure.

Any way you look at it, the 1413 drive is a real bargain. Twice the storage, newer technology, more reliable. It's the only way to go.

Dan Carmen

AD SCHEDULE
AUGUST 1981

Publications

Wall Street Journal	Way Past the Drawing Stage
Communications News	ISX Ad
Communications News	KSX Ad
Computerworld	DATASHARE 6
Computerworld	Future Works Now
Datamation	DATASHARE 6
Modern Office Procedures	1550
The Office	1550

Datapoint Systems Education

Class Schedule
June through December 1981

Course	Date
DATABUS/DATASHARE (5 days)	Aug. 10, Sep. 14, Oct. 26
DOS/ARC (5 days)	Aug. 10, Sep. 14, Oct. 26
DP Orientation (10 days)	Aug. 17, Sep.21, Nov. 2, Nov. 30
CMP Orientation (10 days)	Aug. 17, Sep. 21, Nov. 2, Nov. 30
WP/EMS (5 days)	Aug. 24, Sep. 14
EMS/Msg. Services (5 days)	Aug. 31, Sep. 21, Nov. 2
Systems Orientation (5 days)	Aug. 31, Oct. 5, Nov. 16, Dec. 14
Advanced DOS Systems (10 days)	Oct. 19
Data Comm 1 (10 days)	Aug. 10, Oct. 12, Nov. 30
RMS1 - Transition (5 days)	Aug. 17, Sep. 21, Nov. 30
RMS2-DB/DS/COBOL/Comm (5 days)	Aug. 24, Sep. 28, Nov. 16, Dec.7
Assembler 1 (5 days)	Oct. 5, Oct. 12
Assembler 2 (5 days)	Oct. 19
CMIS/IBP (5 days)	Aug. 3, Oct. 12
ISX/KSX/CASH/CDR (5 days)	Sep. 14, Nov. 16
ASE Group 1, 1st S.A. Phase	Aug. 3 (20 days)
ASE Group 1, 2nd S.A. Phase	Oct. 26 (20 days)
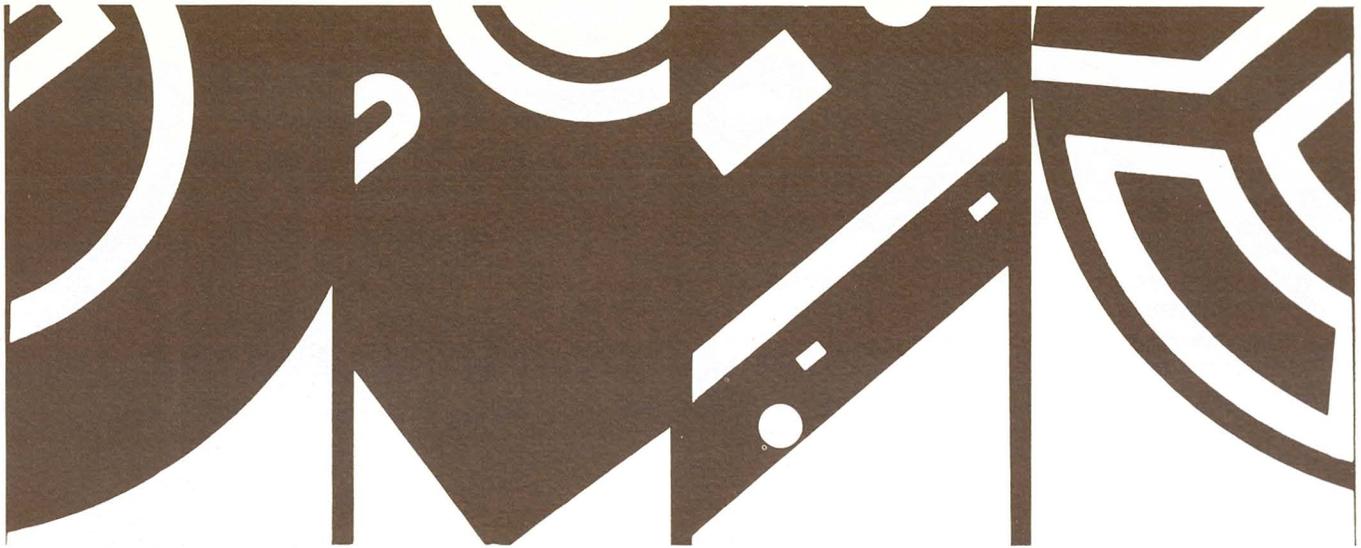
Software Release Summary

Symbol	Release Date	Description	DOS	UG	OBJ	Media
COMM1800 1.3	6/1/81	1800 Comm Channel Test Pgm	G	50389-1	20535 40355	C(1) SSSD(1)
DS6 1.1.1	6/5/81	Datashare VI	CDEG	50536	9828	ALL C(4) SSSD(2) DSDD(1)
CHIOUR 2.2	6/1/81	Channel Input-Output Unit Record Utility	ED	50367	20503	C(1)
DCIOV1 2.2	5/28/81	Direct Channel Interface Option	D	50379	9806	ALL C(1)
ML15TC35 1.4	6/19/81	Burroughs Poll/Select Line Handler for DBML15	H	50461	20634	ALL SSSD(1) DSDD(1)
LOAD15 2.1	6/23/81	1500/1550 LOAD Backup Utility	H	50498	20726	ALL SSSD(1) DSDD(1)
DBCMPLUS 3.1.1	6/9/81	Databus Compiler	CDEG	50321	20458 20459 20429	C(2) SSSD(1) DSDD(1)
DOS.G 2.6.2	6/9/81	DOS.G Maintenance Release - AIMDEX Update	G	-	40460	SSDD(1)
DOS.D 2.6.2	6/9/81	DOS.D Maintenance Release - AIMDEX Update	D	-	20813 40462	C(1) SSDD(1)
DOS.E 2.6.2	6/9/81	DOS.E Maintenance Release -	E	-	20814	C(1)
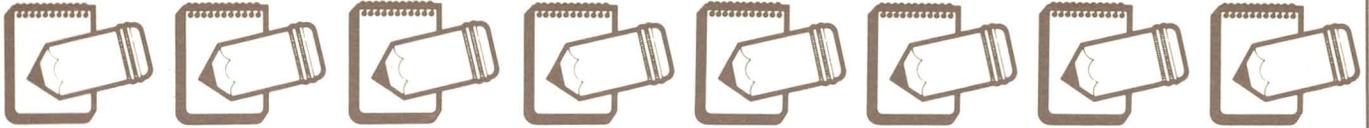
Customer Education Course Schedule 1981

CLASS	DATE	PLACE
Intro to Datapoint Programming	9/14	Arlington
	9/28	San Antonio
	10/5	San Mateo
	10/19	New York
	10/26	San Antonio
Disk Concepts & Operations	9/14	Seattle
		Farmingon Hills
	9/21	New York
		San Antonio
		Los Angeles
	10/12	San Antonio
		Arlington
		New York
	10/19	Arlington Heights
	10/26	San Antonio
Disk Operating System	9/28	San Antonio
		New York
	10/12	Farmington Hills
	10/26	San Antonio
Resource Management System	9/21	San Antonio
		New York
	10/5	Arlington
	10/12	San Antonio
	10/26	Arlington Heights
DATASHARE	9/14	San Antonio
		New York
	9/21	San Antonio
		Philadelphia
	9/28	San Antonio
		Arlington Heights
		Arlington
	10/5	San Antonio
		New York
	10/12	Atlanta
		San Antonio
		Seattle
	10/19	San Antonio
		Los Angeles
		Philadelphia

CLASS	DATE	PLACE
	10/26	San Antonio
		San Mateo
		New York
		Arlington
		Denver
Advanced DATASHARE	9/14	Boston
	9/21	San Antonio
	10/12	Arlington Heights
	10/19	San Antonio
Attached Resource Computer (ARC)	9/21	Arlington Heights
	9/28	San Antonio
	10/19	San Antonio
Work Processing Concepts and Operations	9/14	San Antonio
		Arlington Heights
		New York
	9/21	San Antonio
		Arlington
	9/28	San Antonio
		San Mateo
	10/5	Arlington Heights
		New York
	10/12	San Antonio
	10/19	San Antonio
		San Mateo
		Arlington
	10/26	San Antonio
Electronic Message System (EMS)	10/5	San Antonio
Basic LDCS - Version 4	9/28	San Antonio
	10/19	Boston
	10/26	San Antonio
Advanced LDCS	9/14	San Antonio
Automatic Call Distributor (ACD)	9/21	San Antonio
	10/19	San Antonio

Sales Education
San Antonio

(formerly Marketing Education)
CLASS SCHEDULE
July 1981 - January 1982
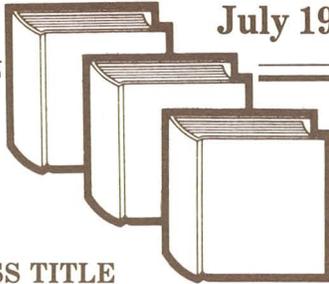
| CLASS TITLE	DATES OF CLASS
Sales Orientation (DP)	August 10 - August 21
Sales Orientation (CMP)	August 24 - Sept. 4
CMP Crosstraining	August 24 - August 28
Resource Management Systems Sales	Sept. 9 - Sept. 12
ISX/KSX/CDR	Sept. 14 - Sept. 18
Sales Orientation (DP)	Sept. 21 - Oct. 2
Adanced Sales School	Oct. 5 - Oct. 9
Sales Orientation (DP)	Oct. 12 - Oct. 23
Sales Orientation (CMP)	Oct. 26 - Nov. 6
Sales Orientaion (DP)	Nov. 9 - Nov. 20
Resource Management Sales	Nov. 16 - Nov. 19
ISX/KSX/CDR	Nov. 16 - Nov. 20
Sales Orientation (CMP)	Dec. 7 - Dec. 18
Resource Management System	Jan. 11 - Jan. 13
Sales Orientation (DP)	Jan. 11 - Jan. 22
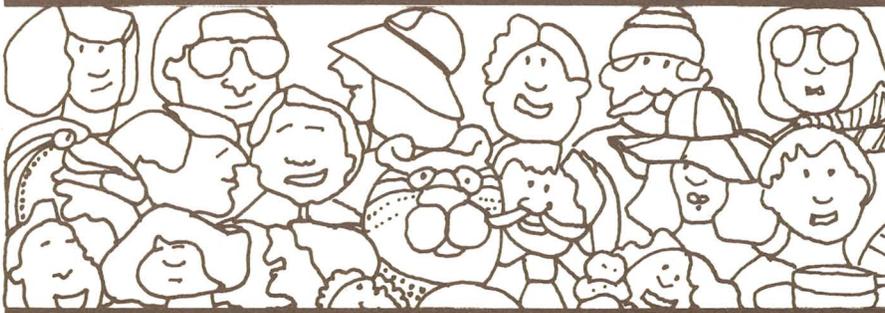
Supplies Prices
The supplies price list has been restructured. Different groups of products will have different quantity breaks (see the supplies price list). In general, the quantity breaks are lower. Diskette and print wheel prices have been lowered substantially.

Datapoint wil no longer break the standard packaging. For example, diskettes are packaged 10 per box, and will be sold in multiples of 10. Some ribbons and all plastic print wheels are packaged 6 per box and will be sold only in multiples of 6. Those products which are to be sold in certain multiples are identified as such in the supplies price list.

Magnetic Media
You will soon begin seeing Datapoint diskettes, disk packs and disk cartridges in distinctive Datapoint packaging which will display the Datapoint logo, product description and model code.

Emergency Supplies Orders
Emergency orders for supplies should now be placed by calling 800-531-5770 (in Texas, 800-292-5100; in Alaska and Hawaii, 800-531-5642). Indicate that you are placing an emergency order. Emergency orders will now incur a 10% or $10 (U.S.) handling charge, whichever is greater. Routine phone orders should continue to be placed through the 800 numbers listed above.

Mail Orders
Mail orders should be addressed to Datapoint Corporation
9725 Datapoint Drive, MS T82
San Antonio, Texas 78284
Attn: Customer Support Center

The new supplies catalog (document number 80000) and price list/order forms (document number 80001) were mailed to all Datapoint field personnel and then all customer sites during the last week of July. Additional catalogs may be ordered through the regular supplies channels as noted above.

Randy Mudarri

Model	Description	Qty.	Price	Maint.	Install.
4220	226 Processor, 5MB storage (two 2.5 MB Diablo Drives, 1 fixed, 1 removable cartridge). Controller. Multiport Interface, D/S software. Documentation		9000	205	500
4520	5500 Processor, 5MB Storage (two 2.5MB Diablo Drives, 1 fixed, 1 removable cartridge) Controller, Multiport Interface D/S Software, Documentation	1-3 / 4-10 / 11+	17750 / 16500 / 15550	234	650
4523	5500 Processor, 5 MB Storage (two 2.5 MB Diablo Disks, Controller, DOS Software Documentation	1-3 / 4-10 / 11+	16500 / 15250 / 14250	216	620
4530	5500 Processor, 48K Dual Disk and Controller, 20MB Multiport Comm Adaptor DATASHARE Software and Documentation	1-3 / 4-10 / 11-25 / 26+	24000 / 22500 / 21000 / 19500	331	775
4533	5500 Processor, 48K Dual Disk and Controller, 20MB DATASHARE Software Documentation	1-3 / 4-10 / 11-25 / 26+	22750 / 21250 / 19750 / 18250	313	755
4540	5500 Processor, 50MB Disk Stoage, Controller, Multiport Interface, D/S Software, Documentation		29450	497	1000
4543	5500 Processor, 50 MB Disk Storage Controller, DOS Software and Documentation		28200	479	970
4620	6600 Processor, 5MB Disk Storage Controller, Multiport Interface D/S Software and Documentation	1-3 / 4-10 / 11-25 / 26+	19950 / 18700 / 17700 / 16200	255	700
4623	6600 Processor, 5MB Disk Storage Controller	1-3 / 4-10 / 11-25 / 26+	18700 / 17450 / 16450 / 15000	221	670
4640/ 4644	Both: 6600 Processor, 50MB Disk Storage, Controller 4640: Multiport Interface, D/S Software, Documentation 4644: RIM, ARC Software, Documentation		36500	628 / 623	1000 / 1000
4643	6600 Processor, 50MB Disk Storage Controller, DOS Software and Documentation		35250	610	970
4740	256K Processor, Dual Disks and Controller, 50MB Multiport D/S Software and Documentation		39100	644	1000
4745	ARC File Processor 256K, Dual Disk and Controller, 50MB, RIM Adapor, ARC Software and Documentation		39100	639	1000
1131	Diskette 1130 Processor, 1 drive		2875	64	165
1132	Diskette 1130 Processor, 2 drives		3162	83	165
1133	Diskette 1130 Processor, 3 drives		3450	101	165
1134	Diskette 1130 Processor, 4 drives		3737	122	165
1174	Diskette 1170 Processor, 4 drives		5500	130	185
9381	Console Diskette Controller, 1 drive		2150	37	165
9282	Console Diskette Controller, 2 drives		2450	57	165
9383	Console Diskette Controller, 3 drives		2750	76	165
9384	Console Diskette Controller, 4 drives		3050	96	165
9385	Freestanding Diskette Controller, 1 drive		2150	37	165
9386	Freestanding Diskette Controller, 2 drives		2450	57	165
9387	Freestanding Diskette Controller, 3 drives		2750	76	165
9388	Freestanding Diskette Controller, 4 drives		3050	96	165
1108	Cassette 1100 Processor, 8K Memory		2200	75	80
2226	2200 Processor, 16K Memory		2400	113	100

Model	Description	Qty.	Price	Maint.	Install.
*9260	600 LPM Printer 64 Char		13000	200	175
*9261	600 LPM Printer 96 Char		13500	220	175
*9280	300 LPM Printer 64 Char		8500	136	175
*9281	300 LPM Printer 96 Char		9000	152	175
5548	5500 Processor, 48K Memory		10000	178	200
9350	Console Front-load 2.5MB Controller/Drive		2975	93	165
9351	Freestanding Front-load 2.5MB Controller/Drive		2975	93	165
9354	2.5MB Extension, Removable Cartridge. (no controller)		2400	57	125
9356	2.5MB Extension, Fixed Cartridge		2400	57	125
9357	Console Front-load 2.5MB Controller Drive, 4K Buffer Memory		3075	86	175
9358	Freestanding Front-load 2.5MB Controller Drive. 4K Buffer Memory		3075	86	175
9370	Freestanding 25MB Mass Storage Drive		7750	135	165
9371	25MB Mass Storage Drive Extension				
9373	Console 25MB Mass Storage Drive Controller		9950	178	250
9291	60LPM Printer, Parallel Interface		1995	56	165
9292	60 LPM Printer, Serial Interface		1995	56	165
9294	120 LPM Printer, Parallel Interface		1995	79	165
*9250	Console Servo Printer		1595	72	165
*9251	Freestanding Servo Printer		1595	72	165
9231	80 CPS Freedom Printer (Serial)	1-3	1750	41	165
9232	80 CPS Freedom Printer (Parallel)	4-10 / 11-25 / 26+	1600 / 1500 / 1395	41	165
*9235	160 CPS Freedom Printer (Serial)	1-3	1995	57	165
*9236	160 CPS Freedom Printer (Parallel)	4-10 / 11-25	1850 / 1725	58 / 57	165
*4640/9280**	4640 and 300 LPM Printer		41500	764	1000
*4644/9280**	4644 and 300 LPM Printer		41500	759	1000
*4643/9280**	4643 and 300 LPM Printer		40250	746	970
*4540/9280**	4540 and 300 LPM Printer		34450	633	1000
*4543/9280**	4543 and 300 LPM Printer		33200	615	970
*Print Pac I**	5556 RIM and (3) 300 LPM Printers		23000	452	675
*Print Pac II**	5556 RIM and (3) 600 LPM Printers		38450	644	675
*4520/9232**	4520 and 80 CPS Printer		18500	275	650
3601	Datastation Terminal		995	21	35
3400	Acoustic Coupler		225	16	25
9401	Comm Adapter		450	18	25
9402	Comm Adapter		450	18	25
9404	Comm Adapter		450	14	25
9408	DATASHARE Modem, 1200 baud transmit 150 baud receive full duplex				25
9409	DATASHARE Modem, 1200 baud receive 150 baud transmit full duplex		450	18	25
9420	Comm Adaptor		450	14	25
9460	Comm Adaptor		450	18	50
9551	9 Track 800 BPI 8.5 in. Reel		4500	77	165
9581	9 Track 1600 BPI 8.5 in. Reel		7500	97	175
9583	9 Track 1600 BPI 10.5 in. Reel		9000	91	175

Prices are U.S. Dollars
**Special Ordering Information
Those others that are bundled need to be ordered as individual lines items on Order Entry Form #60719.
*Temporarily out of stock.

Marketing Support Material

Small Systems Products Manual
(For internal use only)

Small Systems Manual - Document # 61174

IEOS Quick Reference Card for Word Processing - Document # 60931

IEOS Quick Reference Card for Word Processing

DATAPOINT

COMMAND MENU COMMANDS

RMS CHAIN Quick Reference Guide - Document # 50597

RMS CHAIN
Quick Reference Guide

Software Catalog

Software Catalog - Document # 60000

DATAPOINT DOUBLE-DENSITY DISKETTE DRIVES

DATAPOINT DOUBLE-DENSITY DISKETTE DRIVES

CONCEPTS
OF RMS DATABUS PROGRAMMING, VOLUME ONE

Simplified User's Guide

Datapoint Double-Density Diskette Drives Document # 60984 Document # 61032

Concepts of RMS DATABUS Programming Volume One - Document # 61139

TRADE SHOWS

*Sep. 15-17	National Business Aviation Annual Convention (Computerware, Inc.)	Anaheim, CA
Sep. 15-18	Securities Industry Assoc.	New York, NY
Sep. 21-25	Telecommunications Association	San Diego, CA
*Oct. 2-4	National Office Products Show (Continental Data Systems)	Chicago, IL
*Oct. 15-17	Professional Insurance Agents National Convention (MATRIX)	Washington, DC
*Oct. 18-21	California Independent Insurance Agents Convention (MATRIX)	Palm Springs, CA
*Oct. 19-21	Joint Meeting of American Society of Pathologists ' American College of Pathologists (Medical Scientific International)	Las Vegas, NV
*Nov. 1-4	DPMA San Francisco '81 (Datapoint San Francisco Branch)	San Francisco,
Nov. 3-5	Federal Office Automation Conference (FOAC)	Washington, DC
*Nov. 4-6	National Oil Jobbers Council (General Info Systems, Inc. - GISI)	Philadelphia, PA
*Nov. 9-12	US League of Savings and Loan Association National Convention (RADIX Corporation)	New York, NY
Nov. 17-19	SE Telecommunications Association	Atlanta, GA
Nov. 19-22	COMDEX	Las Vegas, NV
*Dec. 5-10	American Society for Hospital Pharmacists (Medical Scientific International)	New Orleans, LA
*Dec. 14-16	International Foundation for Employee Benefits Plans EDP Conference (ADSERV)	Hollywood, FL

Any OEM or Datapoint Representative may rent he demonstration equipment, pending availability. Reservations are resquired six months in avance to ensure equipment usage on desired dates. For information contact Bonnie Cushman at (512Z) 699-7059.

  sponsored by Datapoint

* - sponsored by other than Datapoint

▷ DATAPOINT

Datapoint Marketing News
Mail Station T41
9725 Datapoint Drive
San Antonio, Texas 78284