

Computer Systems Newsletter

Vol. 3 No. 2
Dec 1, 1975

For HP Field Sales Personnel

GROUP NEWS

CONGRATULATIONS ON A JOB WELL DONE!

by Ben Holmes - GSD

The results of a very fine performance for fiscal 1975 are now official. Our Product Type 2 quota performance ended up as follows:

North America	94%
HPSA	99%
HPIC	112%

Our worldwide performance ended at 98%, a recovery of ten percentage points from our position earlier this year.

The effect of the reorganization and all the hard work that each and every one of you has put forth has resulted in this fine performance. I would have preferred 110%, but considering all the things we had to overcome this year - not the least of which was a poor economic situation - we have come through extremely well. Our growth in my opinion also has been faster than the industry's and you are to be congratulated.

I believe this performance has been due directly to your efforts. I am looking forward to another outstanding performance and a 120% quota year.

(GROUP NEWS continued back page)

 HEWLETT PACKARD

DIVISION NEWS

LOVE THAT WINNING FEELING

by Joe Schoendorf - DSD

You, the Computer Systems Group Sales Force, did one great job for Data Systems Division in 1975. You came in at 101% of quota. This represents a growth greater than 35% over 1974.

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 HEWLETT PACKARD

Love Winning Feeling (cont.)

The three sales forces finished as follows:

Intercon-Malcolm Kerr	140%
European - Heiner Blaesser	100%
North American - Jim Schmidt	96%

In North American, special commendation goes to *Russ Stewart* and his Southern tigers for finishing first at 101%. *Bill Richion* and his Neely team finished dead on at 100% with a performance of nearly 200% in October. *John Sundry-Eastern*; *Bob Stringer-Midwest*; and *Mark Barook-Canada* all came in over 95%. All product lines did well. We will have more details in the next issue.

We're on our way! Let's do it again in 1976!

HEWLETT-PACKARD

PRODUCT NEWS

ANOTHER FIRST FOR THE 2644A MINI DATASTATION

by *Bob Bowden - DTD*

Major changes are happening in the telecommunications industry, and Hewlett-Packard CRT Terminals are playing a significant role in these changes. At the first demonstration

at an approved user site of a non-Bell modem connected to the telephone system without the standard DAA, the terminal used was the new 2644A Mini DataStation. The following is an excerpt from the front page *COMPUTERWORLD* article of October 29:

COMPUTERWORLD

THE NEWSWEEKLY FOR THE COMPUTER COMMUNITY

Weekly Newspaper

Second-class postage paid at Boston, Mass., and additional mailing offices

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October 29, 1975

Vol. IX, No. 44

Registered Non-Bell Modem Connected To Calif. Phone System Without DAA

By **Ronald A. Frank**
Of the CW Staff

SAN FRANCISCO - Late last week a non-Bell modem was connected to the telephone system in this area without a phone company Data Access Arrangement (DAA). The modem contained built-in circuitry which was certified and registered by the California Public Utilities Commission (PUC) as being functionally equivalent to a DAA.

The modem was certified by a

registered electrical engineer as provided by the PUC in May of this year when it issued a general order outlining the procedures to be followed to eliminate the use of DAAs on intrastate services within California.

The first use of a registered modem occurred when a Hewlett-Packard (HP) 2644 CRT was connected to a phone line with a Vadac Corp. 3400 modem that had been approved for use without a DAA.

The CRT was being demonstrated for a user interested in the 2644 and data was transmitted to an HP 2000 Access system in Palo Alto, Calif. Data was also transmitted to an HP 3000 CPU to demonstrate a source data entry software package.

Vadac has been producing the built-in DAAs for some time, although the installation last week marked the first approved installation at a user site. Previously these modems have been supplied to overseas users, but the California registration allows their use on intrastate links.

Similar proposals for the certification and registration of non-Bell modems are pending before the Federal Communications Commission (FCC) for interstate services. More than 28 companies recently sent comments on the proposals to the FCC [CW, August 6].

The Interconnection Office of the FCC staff reportedly is ready to submit its recommendations on the liberalized interconnection proposals to the commission. The project is said to have high priority with the commissioners, but no date has been set when the commission will vote on the issue.

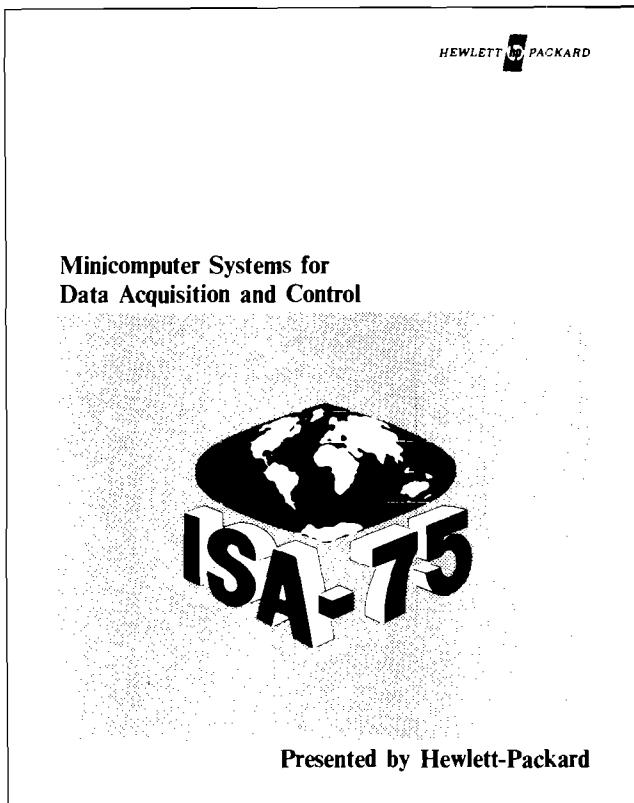
THE ISA - A BIG PLUS FOR YOU


by John Streeter - DSD

The Instrument Society of America continues to be a key organization for HP contact and participation. A large percentage of ISA members use or have a need for computer systems. Exposure of HP computer products to ISA members can mean added \$ to us all.

Tom Bills, FE-Dayton, recently took advantage of his ISA contacts. A presentation on minicomputers to the Cincinnati section of ISA was done at their monthly meeting. The presentation led to several new contacts for Tom, and added credibility to HP's commitment to the computer industry.

A popular hand-out which is available via Data Systems Sales Development is the ISA Course Manual - "Minicomputer Systems for Data Acquisition and Control." The manual can be used in conjunction with a 1-day slide pitch which presents computer system solutions to computer novices. DSD personnel will be glad to put on the presentation to potential customers or ISA sections with appropriate field planning and preparation.



HEWLETT  PACKARD

**Minicomputer Systems for
Data Acquisition and Control**

ISA-75

Presented by Hewlett-Packard

If you are not already a member of ISA, we urge you to apply now. ISA applications are available from your DSD Sales Development contact.

HEWLETT  PACKARD

Remember - DSD and ISA = \$\$\$

DATAMATION AWARD TO TERMINAL ADS



(Anonymous) - DTD

One event that warms a marketing manager's soul is learning that his programs are effective. And in Data Terminals Division, great importance is placed on the advertising program. Therefore, Ed Hayes' day was made recently when Datamation Magazine presented him with the award for reader recall in the August 1975 issue.

The 2640 ad appeared in a regular issue, however, this issue was chosen to be surveyed. The "aided recall" technique was employed. The magazine was circulated to a group of readers who were asked to identify the ads they most remembered seeing and reading. The ad on the 2640A was remembered more than any other terminal ad in the issue.

Winning awards is not uncommon for this ad. Using the same survey technique on the January issue of Computer Decisions magazine, readers saw and read more of this ad than any other 2 page ad in the issue and it was the second best read ad overall.

These awards are a tangible indication that this ad is properly presented. More people notice it, and read it over other terminal ads. And once the reader qualifies himself as a terminal prospect, he then responds to the company for more information. The tangible result of this action is his filling out a "bingo card" on the product. Once again, the terminals ads are performing -- in fact excelling. More readers are asking for information on the product from this ad than from any other ad in the recent history of the division.

Hewlett-Packard Data Terminals advertising is playing a major role in the increasing awareness of the company as a leading CRT terminal manufacturer. And each order you send in extends that lead. Keep selling terminals!!

HEWLETT  PACKARD

9600MX STANDARD SPECIALS MAKE IT EASY - QUARTERLY UPDATE

by Peter Palm - DSD

The following is a list of popular "standard" specials that Cupertino is willing to quote again.

NOTE

Price reflects most recent quotation and should be considered budgetary. Contact Sales Development for firm quotation.

(Continued on page 4)

9600MX OPTION #	DESCRIPTION	BUDGETARY PRICE	OPTION VALID ON 9600MX					
			9 6 0 2	9 6 0 3	9 6 0 4	9 6 1 1	9 6 4 0	9 7 0 0
415	12531D-001 EIA compatible interface card & cable. 150, 300, 600, 1200, 2400 bps. For use with local EIA teleprinters.	\$ 405	X	X	X	X	X	X
416	HP 6130C DC voltage source subsystem. Includes voltage source, interface, cable and diagnostic. Current to 1A. 91010A (\$4,400).	\$ 4,100	X	X	X	X		X
417	Additional HP 6130C voltage source with chaining cable. Add on via 91010A-001. (\$2,675)	\$ 2,675	X	X	X	X		X
418	HP 6131C DC voltage source subsystem same as 6130C except current to 5A. Add-on via 91010A-002 (\$4,400).	\$ 4,100	X	X	X	X		X
419	Additional HP 6131C with chaining cable. Add-on via 91010A-003 (\$2,675).	\$ 2,675	X	X	X	X		X
421	HP 5327B Counter Subsystem with DVM with full remote programming. Add-on via 93503A (\$8,400).	\$ 8,100	X	X	X	X		X
422	12566B-002 Microcircuit Interface Card (diagnostic only).	\$ 500	X	X	X	X	X	X
423	12597A - 8-bit duplex register (diagnostic only).	\$ 415	X	X	X	X	X	X
502	Expands 5 digit integrating subsystem 2402A/2911A/B to 400 3-wire channels with capability to expand to 1000 channels by adding opt. 503's. Field add-on via 93507A-001 (\$14,500).	\$14,000	X					
503	Add 200 3-wire channels to cross-bar scanner. Requires opt. 502 (93507A) above. Field add-on via 93508A (\$6,950).	\$ 6,950	X					
426	12930-002 Positive True Universal Interface Card	\$ 905	X	X	X	X		X
430	3480/3484/2912A Subsystem for AC/DC measurements. Must order at least one 10 channel plug-in module. See options 434, 435, 436. Opt 434 (Extender) required for more than 4 plug-ins.	\$15,995	X	X	X			X
434	2920A Extender for 2912A	\$ 2,700	X	X	X			X
435	2921A Low Level Module (10 channels)	\$ 950	X	X				X

HP Computer Museum
www.hpmuseum.net

For research and education purposes only.

9600MX OPTION #	DESCRIPTION	BUDGETARY PRICE	OPTION VALID ON 9600MX					
			9 6 0 2	9 6 0 3	9 6 0 4	9 6 1 1	9 8 4 0	9 7 0 0
435	2921A Low Level Module with 9611A termination cable assembly.	\$ 1,875				X		
436	2922A High Level Module (10 channels).	\$ 950		X	X			X
436	2922A High Level Module with 9611A termination cable assembly.	\$ 1,875				X		
438	Allows special racking of system. All special racking must be approved by Project Engineering at Cupertino for safety & heat dissipation considerations.	\$ 500	X	X	X	X	X	X
442	2640-001, 006, and 12880A expanded character set CRT.	\$ 3,550	X	X	X	X	X	X
444	Integrate without console. SPECIAL I/O ADDS-ONS	\$ 400	X	X	X	X	X	X
1. 12894A		\$ 250						
-E01	Multiplexed I/O for 21MX computers (8" cable). OR	\$ 875						
-E02	Same as E01 except 6' cable.	\$ 900						
2. 93700A	Isolated Duplex Register which provides 16 differential outputs plus encode and 16 isolated inputs plus flag. Rated Isolation: Working Voltage 48V DC common mode. Max Fault Voltage: 700V DC common mode. SPECIAL ADD-ON SUBSYSTEM	\$ 950						
1. 93501A	Provides add-on subsystem containing 3480/3484/2912A. Base system good for DC volts only. Available for RTE or RTE-C only. Must order at least one Opt. 004 or one Opt. 005 to be operational.	\$15,350						
-S50	Adds RTE software.	\$ 0						
-003	Add AC option to 3484.	\$ 1,230						
-004	Adds 2921A Low level 10 channel module to 2912A.	\$ 950						
-005	Adds 2922A High level 10 channel module to 2912A.	\$ 950						
-006	Adds 2920A Extender. Required if more than four Opt. 004 and/or 005's are added. Each 2920A holds an additional 10 modules.	\$ 2,700						

LOWER PRICES ON MEASUREMENT STARTER SET . . . GSA ORDERING MADE EASIER ON 9603A

by Pete Palm - DSD

To provide a lower cost "starter set" for RTE measurement systems, changes in racking and lower prices are now available. This will particularly benefit your government customers since the plug-in cards and measurement/control software and drivers are not available on the GSA Federal Supply Schedule Group 66. Making 9603A's easier to sell includes:

1. Allow racking of the 21MX I/O extender (T00) in bay #1 of 9603A when either the 91000A card (9603A-001) or the remote communications cards (9603A-002, 003) replace the 2313B in the base 9603A. The I/O extender will mount where the 2313B was. This saves you \$1600.
2. Add the 9640A/7900A/RTE-III/RTE-II disc options (A11, A12, A13, A15) to the 9603A when the 91000A or remote stations (options 002 & 003) are ordered. With no 2313B in Bay #1, the 7900 disc can mount as it does in the 9640A. Prerequisites for A11, A12, A13, A14 are Options 001, 002, or 003. This saves \$900.
3. Standard Special Option 9603A-400 (-\$5800) deletes the 2313B for those customers who either want to order CPU plug-in cards as Schedule 66 options or who want the measurement drivers, DAS utilities and ISA FORTRAN. Option 9603A-400 is not on GSA-66 but is a negative price option and most GSA procurement officers allow you to use it without "going out to bid." The 9603A-400, including the DAS utilities, etc., is \$300 more than a comparable 9640A.

HEWLETT  PACKARD

24K RECOMMENDED FOR 96MX MEASUREMENT SYSTEMS

by Pete Palm - DSD

Recent experience has shown that only minimal RTE-II configurations can exist in the 16K base measurement systems (9602A, 9603A, 9611A). Generations including any other large RTE drivers (e.g., 2644, plotter, mag tape, 7261 card reader, or line printers) will not leave enough room for RTE assemblers or compilers. Thus, the new 9600MX configuration guide lists another 8K memory (Option P11) as a prerequisite for RTE-II.

The 9640A with RTE-II will work in 16K with one or two small drivers. But, be careful. Consult the configuration guide notes for revised driver, assembler and compiler storage requirements.

HEWLETT  PACKARD

91063A/6940B UPGRADES

by Dave Hendrix - DSD

New Jersey Division has revised the 6940A/41A Multiprogrammer to the 6940B/41B which permits operation with up to 100 ft. of cable between the computer and the multiprogrammer. DSD has upgraded the 91063A/91140A Digital I/O

Subsystem to incorporate the latest revisions of the 6940 but there is a problem. The 6940A/41A is not compatible with the 6940B/41B without some pertinent circuit changes.

If your customers want to upgrade their system to increase their multiprogramming capability you must beware of the possible pitfalls. If you order the 6940 multiprogrammer or the 6941 extender from DSD under the 91063A/91140A you will get a 6940B or a 6941B (the "B" changes do not affect any input/output cards which plug into the "400" slots so there should be no worry when ordering I/O cards). The problem occurs if the customer has 6940A's or 6941A's as they do not readily mix with 6940B's or 6941B's.

The 6940A/41A's have to be upgraded themselves to be compatible with the "B's". (Reference service note 6940A-3 or 6940B-1 and consult your C.E. organization before ordering any add-ons.) Presently, DSD does not provide any method of upgrading the 6940A/41A's to be compatible with the "B's". This must be done by going directly to the New Jersey Division for the required parts.

HEWLETT  PACKARD

SALES ENGINEERS' CORNER

SENIOR SALES SEMINAR — NOVEMBER 1975

by Jim Eckford - DSD

A roaring success! That's what people are saying about last month's senior sales seminar held in Cupertino, California.

The theme of the seminar was "Love That Winning Feeling." This theme was very appropriate in light of the fact that both sales and shipments figures for the Computer Systems Group for 1975 were outstanding in terms of CSG's goals and also compared to the rest of the industry.

The beginning of the week featured addresses from the various division General Managers where they highlighted their past year, reviewed their plans for 1976 and set the stage for more detailed discussions in later sessions. These sessions included topics like future product directions, current product review with some hands-on and management feedback forums. Occasionally, during the Division Manager's address, the seminar attendees were fortunate enough to witness displays of great technical knowledge on the part of the GM's; which, as you know, is in keeping with tradition at HP. Two cases in particular were: Dick Anderson's in-depth presentation of the equivalent circuit of a 4K dynamic random access memory (See figure 1) and Al

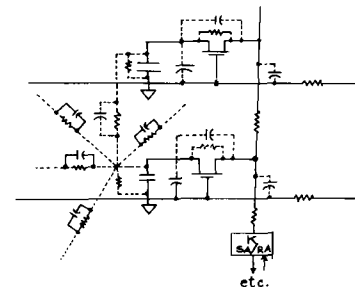
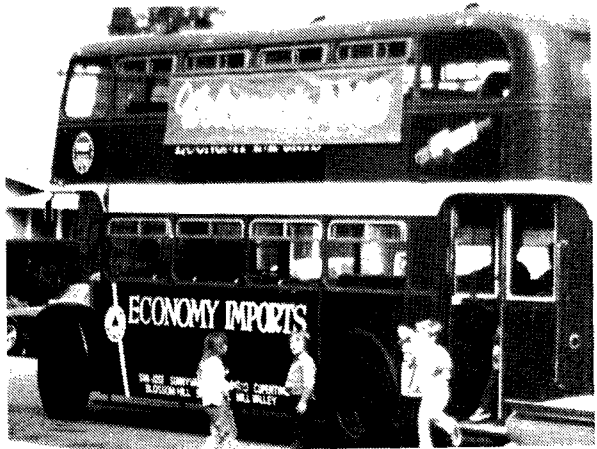


Figure 1. A 4K Dynamic Random Access Memory

(Continued on page 10)



Introducing.....the New 95XX ROADRUNNER

Schoendorf's only figurehead;
I really run the show in the Sales Department.



Then when they opened
the crate in St. Louis
my best shipping guy
fell out.

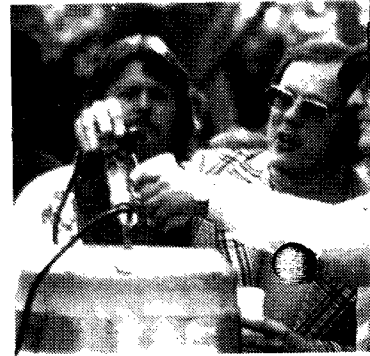
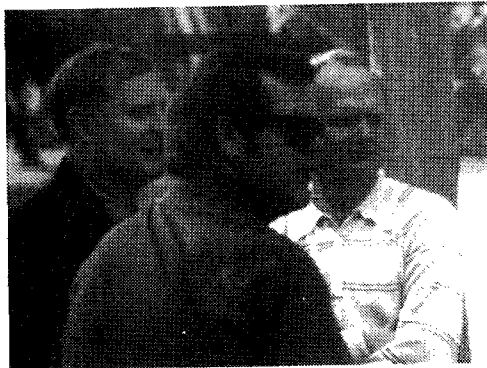


It's all a mistake! All I did was to sell GM
a 9620 engine test system.



I wonder if I could figure
out how to give DOS back to Sande

Move out of the way Theo,
you're blocking my picture.

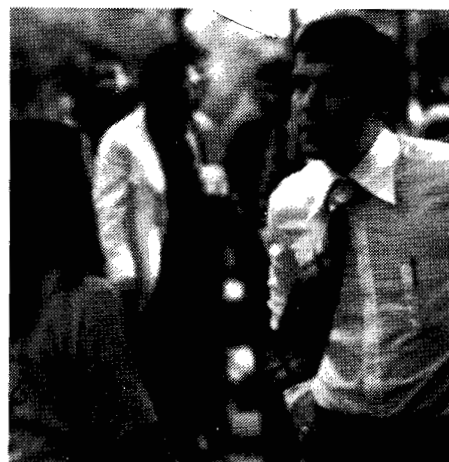


WHERE'S THAT GUY
DINGLEDORF?

VOULEZ VOUS.....



LAKWOOD PARK, SUNNYVALE, CALIFORNIA
WEDNESDAY, NOVEMBER 5, 1975



Just as I suspected;
this is how our support
people spend their
lunch 3 hour.



Dick Anderson performing altitude
and drop test on the new FLOPPY.

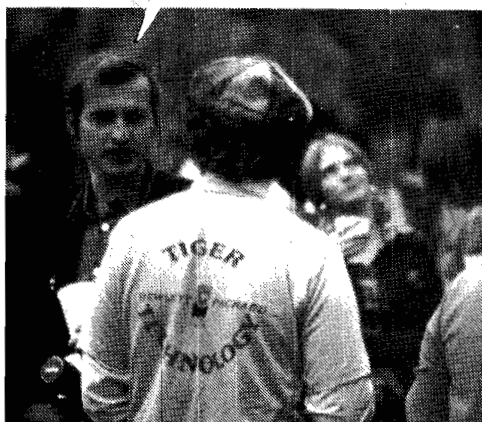


Is it true that you are
AMD's new Lab Manager?

Well, I'll talk it up,
but I don't really think
we can use you over
there this year CURLY.

It's been a long time
since I've tried this.

He's big but that's a
lot of beer.



Senior Sales Seminar (cont.)

Seely's development plan for the 9599 all mil spec Winibago.

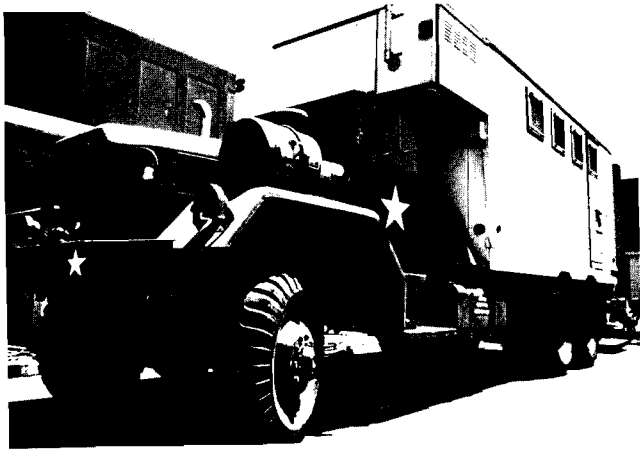


Figure 2. 9599 Mil-spec Winibago

Jim Arthur kicked it off for Terminal Products Division as did Ray Smelek for Boise. Other distinguished personalities who provided a great deal of information and interesting comment were John Young, Barney Oliver, Paul Ely and Ben Holmes.

Everyone seemed very pleased with the new product programs from all of the divisions and a very positive spirit prevailed at the conclusion of the seminar Friday.

Love that winning sales team!

HEWLETT  PACKARD

ANOTHER 3000 SALE TO HUGHES

by Jean Toth Kelley - GSD

It's taken a long time to land this sale to the Manufacturing Division of Hughes in El Segundo, California. It was finally closed by Joe Sigismonti with the help of S.E.'s Ben Menold and Dick Breon.

Hughes is currently using a CDC 1700. Competition was a DEC RSTS on the 11/45, a DG dual processor 840 and IBM's System/7. This division produces a high dollar volume in radar systems every day and the key issue was "redundant" systems.

HP won the sale largely because of our distributed system capability via programmable controller, our performance in the manufacturing environment which was confirmed by 2 factory visits, and our long-term good relationship with Hughes, coupled with a strong sales effort.

Congratulations Joe, Ben and Dick!



HEWLETT  PACKARD

"HURRAH"

by LeRoy Nelson - DSD

The 2112A is released to manufacturing and is shipping with complete UL and CSA approvals. To date, manufacturing has shipped approximately 100 units in 9600 systems and single unit orders.

The 2112A is an important addition to our product line because of its capability to handle 8 memory modules and 14 I/O cards in the mainframe.

The 2112A power supply has a capacity of 50 Amps of +5V. The Processor Board, Instruction ROM and front panel use 11.2A of this available current. The remaining 38.8A is available to I/O, memory and processor accessories. Remember — every plug-in unit draws power from the power supply and must be considered when a system is configured.

A complete table of power supply current capacities and accessory loads is available in the new processor data sheet, literature #5952-4683.

AVAILABLE CURRENT TO MEMORY, I/O & ACCESSORIES

SUPPLY VOLTAGE	2105A	2108A	2112A
+5	12.8	24.8	38.8
-2	5.0	5.0	10.0
+12	1.0	1.5	3.0
-12	1.0	1.5	3.0

REQUIRED CURRENT FOR ACCESSORIES

	+5	+12	-12	-2
12892 Memory Protect	2A	—	—	.05A
12897 DCPC	3.3A	—	—	.05A
12909 Prom Writer	1.2A	.5A	.3A	.04A
12975 User Control Store	1.68A	—	—	—
12976 DMS (includes mem. protect)	3.9A	—	—	—
12977 FFP	3.6A	—	—	—
12978 Writable Control Store	4.6A	—	—	.15A
12979 I/O Extender Buffer Card	2.0A	—	—	1.35A
12990 Memory Extender	0	—	—	—
12992 Disc Loader ROM	.15A	—	—	—
2102 Memory Controller	1.2A	—	—	—
2102				
-004 4K Memory Module	.5A	—	—	—
2102				
-008 8K Memory	.5A	—	—	—

HEWLETT  PACKARD

NEELY FINISHES STRONG

by Bob Hoke - DSD

Neely turned in a fantastic October (184%) to close the quarter at better than 115% for a right-on year!

It was a total team achievement with outstanding efforts on all parts.

Congratulations to the SUPER NEELY TEAM!

HEWLETT  PACKARD

SEMMELOTH STARS SHINE

by Paul Wittman - Skokie

The North District of Midwest West — led by fearless *Al Semmelroth* — had 4 (count 'em four) out of 5 of their FE's over a million bucks this year. Not only were they great performers in dollars, but they contributed greatly to the overall strength and future growth of the district.

In particular:

Ron Tarkowski - Wisconsin



Brought in a 500K plus AMD System at Northrup. Established three target accounts in a previously undeveloped territory -- Wisconsin.

1. J. I. Case in Real Time Systems
2. University of Wisconsin -- Volume End User Agreement and installed three Access Systems
3. Allis Chalmers -- had a big 3000 specified for an Engineering System

(Allis Chalmers was due primarily to a System 3 User's group meeting where we physically moved the Data Center 3000 Model 300 to Milwaukee for a one day show.)

Bill Burger - Iowa



Bill's biggest OEM that had previously produced over a half million was affected by the recession and dropped below 100K. To compensate for this, *Bill* sold horizontally two big 3000 systems and many, many, 2640 Terminals to established time share customers.

He established two Systems Houses using our Systems that will develop into OEM's this year.

Tom Rappath - Minnesota



Tom worked on a penetration of a big Tape Deck OEM and placed RTE Systems as well. He also sold two 3000 systems to new accounts (including a University of Wisconsin branch) and placed a 9540 System.

Another great year for last year's National Sales Champ!!!

John Malone - Chicago North



John ("Rocco" to his friends, which is anyone with money) developed a One Million Plus OEM this year. This deserves a round of applause (applause everyone please).

As if that was not enough, he also sold a 3000 in a Data Processing Shop replacing a 360 System and developed other commercial accounts as well.

Rocco is our candidate for this year's Salesman Of The Year — and is really deserving of it.

But, don't think these stars were so brilliant without help. They had the help of three great SE's *Bill Alexander* and *Bill Yasdick* in Skokie and *Bruce Gustafson* in St. Paul, plus the support effort of two super service districts led by *Jim Loizzo* in Skokie and *Mike Hayes* in St. Paul.

Hooray for all of you, great year, but nothing like we will have in '76 — not an HP Bicentennial, but we will make so much noise you will think it is !!!!!!!!!!!!!

AUSTRALIAN SUPER SALES SUCCESS

by Dave Hancock - DSD

The Royal Australian Survey Corps had an Interdata S/32 system installed for general purpose programming and data preparation for "Gerber" plotter systems. Fortunately, HP was also given a chance to prove its capabilities. What followed was an excellent display of successful teamwork.

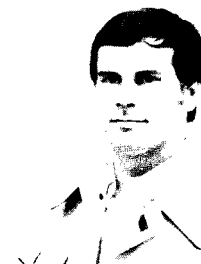
SE *Mike Woodhams*, FE *Adrian Farrell* and DM *Colin Howard* teamed together to run numerous bench marks, demonstrations and discussions showing the power of HP's RTE-III. Result: the Australian Army gained enough confidence to sign a purchase contract for a \$100,000 RTE-III system . . . and advised Interdata to take back their S/32. A very nice win over a competitively installed account, one of the hardest ways to do it.

Congratulations to *Mike*, *Adrian* and *Colin* along with their support folks — a great S. S. S! Another case where total selling effort and the power of RTE-III proved the winner. This should lead to future business with the Survey Corps, as well.

HEWLETT PACKARD

ONE SALES CALL = ONE 3000 SALE

by Don Lund - GSD



Jim VanSlambrook (left) *Al Ipson* (right)

Jim VanSlambrook FE Pittsburgh and *Al Ipson*, SE Cleveland, teamed again for one of the quickest 3000 sales on record.

Starck Van Lines, an Atlas agent in Pittsburgh, responded to a 2640 ad in *Computer World*. The lead was forwarded to *Jim* who called them right away. The potential customer wanted to know if the 2640 would work on an IBM System 3, Model 15. *Jim* found that *Starck* was about to upgrade from a Model 6 in order to have a terminal oriented system for data base management to help with their shipment tracking. *Jim* asked him if he would be interested in investigating a system that would do "twice as much for half the cost." Naturally the customer wanted to hear more about the HP 3000.

Jim called on *Starck* and found data base management and RPG capabilities to be of prime importance. *Starck* has 250 RPG programs that they will be converting.

Starck asked for a demo of these capabilities so *Al Ipson* prepared the type of demo they wanted. Nine days after the

(Continued on page 12)

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One Sales Call (cont.)

sales call, *Al* and *Jim* picked up the two Starck employees in Pittsburgh and drove them to Dayton where the Midwest-East has their 3000. The demo was a tremendous success. As they drove back to Pittsburgh, Rick Starck, the President of Starck Van Lines, said "If you want to stop by our office, we'll prepare the purchase order for you." So, at 12:30 A.M., the P. O. was prepared for a 3000 — Model 100.

Congratulations to this dynamic duo. Good luck *Al* in your new role as a FE in Cleveland.

HEWLETT  PACKARD

SALES AIDS

HP INTERFACE STARTS TO ROLL

by *Hugh Amick* — DSD

Orders for the 59310A have been taking off the last 3-4 months so it's time to get everyone involved and up to speed.

FEATURES

- 2100/21MX Compatibility
- Up to 14 HP-IB Measurement and Stimulus Instruments
- BCS Software
- DMA or Non-DMA Drivers
- Addressable by other Controller to listen or talk
- Programmable through User Program to listen or talk
- Serial or Parallel Polling as Controller

RECOMMENDED READING

- January 1975 HP Journal
- *Electronics* Reprint 5952-2464
- Bus I/O Kit Operating and Service Manual 59310-90001
- HP-IB Data Sheet 5952-0023
- 59310A Data Sheet 5952-5521

The recommended reading list can be greatly expanded by neighboring with your local instrument salesperson. If you haven't already, get together with him and discuss how the both of you may approach HP-IB together.

Most applications have been small ATE Systems and those RTE Systems where a limited amount of measurement was required but the power of RTE was important enough to start work on their own RTE Driver.

Specific Applications will be included in future Newsletters to give you an idea where our customers are heading with the 59310A and HP-IB.

476HP-IB = \$4U&DSD

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2000 ACCESS — RJE VS TSP/2000

by *John Wynbeck* — GSD

RJE — Remote Job Entry TSP — Telecommunications Supervisory Package

Acronyms like RJE and TSP are handy abbreviations once their meaning is understood by everyone. Sometimes, even knowing the words from which they derived doesn't tell the whole story. This article clarifies the relationship between RJE, TSP, and 2000 Access System.

RJE and 2000 Access

Every 2000 Access System is inherently capable of performing RJE using either the IBM HASP-II Workstation emulator or the CDC UT200 emulator. Software to emulate both of these RJE methods is supplied with every system on the master configuration tape. The user chooses the protocol (either IBM HASP or CDC UT200) when he configures his system at the system console.

One critical hardware item is *not* supplied, the synchronous interface kit (12618A). This must be ordered either as a line item (\$700) or obtained along with TSP/2000-HASP by ordering 19700A option 226 (\$1000) at the time the system is purchased. Herein lies the confusion: the 12618A interface kit is required to do any RJE. TSP/2000-HASP is not!

TSP/2000-HASP

TSP/2000-HASP is an *applications software package* written in BASIC. Its name is Telecommunications Supervisory Package for HASP. Its product number is 20240A and it is available as an HP supported product for a \$2000 one-time charge.

TSP is primarily a spooler/scheduler for HASP RJE operations. It permits users to submit and schedule jobs from a terminal without knowing any HASP remote commands or having to write programs to use the virtual devices. See the TSP/2000-HASP data sheet (5952-5502) for more details.

Summary

1. *You get RJE system software with every 2000 Access System whether you want to use it or not.*
2. *If you want to use it, you must order a 12618A interface kit.*
3. *If you intend to use IBM HASP then 19700A option 226 is a good buy at \$1700 less than the sum of the list prices of the 12618A (\$700) and TSP (20240A @ \$2000).*
4. *If you intend to use CDC then order a 12618A as a line item.*

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QUALIFYING THE CDC HOST FOR ACCESS

by Dan Jorgenson - GSD



The HP 2000 Access System can communicate with a CDC computer by emulating a 200 user terminal. CDC computers that can support this remote batch terminal include the CDC 3000, 6000, Cyber 70 and Cyber 170 Series of systems.

Operating Systems

The following is a list of current CDC operating systems which support 200 UT protocol, and consequently, the Access System.

CDC 3000	CDC 6000	CDC Cyber 70	CDC Cyber 170
MASTER 3.3 with: RESPOND-EXPORT/IMPORT 1.3, or MARS-III 1.3,	SCOPE 3.2	SCOPE 3.3 with: INTERCOM 3.0	NOS
MASTER 3.4 with: RESPOND-EXPORT/IMPORT 1.3 or MARS-III 2.0,	SCOPE 3.3 with: INTERCOM 4.1	SCOPE 3.4 with: INTERCOM 4.1	
MASTER 4.0 with: RESPOND-EXPORT/IMPORT KRONOS 1.4 or MARS-III 2.0,	SCOPE 3.4 with: INTERCOM 4.1	KRONOS	

Master, Scope, Kronos and NOS!

MASTER, the principle operating system for the CDC 3000 series, provides facilities for multiprogramming. RESPOND is a file oriented package used with MASTER to provide an interface between the 3000 series system and remote terminals; while EXPORT/IMPORT consists of a set of RJE routines which operate in connection with RESPOND and MASTER.

MARS-III (Multiple Access Retrieval System) is a data management system that operates under MASTER, and provides batch and on-line inquiry and report generation facilities.

SCOPE, the primary operating system for the CDC 6000 and CYBER 70 series of systems, provides multiprocessing and multiprogramming facilities, and handles concurrent local batch, remote batch and interactive jobs.

INTERCOM is a set of communication control routines which operate in connection with SCOPE to provide interactive and remote batch access to CDC 6600 or CYBER 70 system.

KRONOS is a timesharing operating system for the CDC 6000 and CYBER 70 series systems. It can handle interactive, remote batch, and local batch processing.

The batch and timeshare capabilities of SCOPE and KRONOS have been incorporated into the newest of CDC operating systems NOS, (Network Operating System). It's the primary operating system for the CYBER 170 series, but is available for upgrading the CDC 6000 and CYBER 70 series.

Communication Hardware

The following is a list of CDC communications hardware that can be used to interface with the 200 user terminal.

CDC 3000	CDC 6000, CYBER 70	CYBER 170
3316-1 Multiplexer Controller	791-1 Communication Subsystem	2550 Series Host Communication Processor.
or	or	
3266 Communication Terminal Controller	6671 Data Set Controller	
with	or	
3275 Data Set Controller	6673 Data Set Controller	
	or	
	6674 Data Set Controller	
	or	
	2550 Series Communication Processor	

(Continued on page 14)

Qualifying the CDC Host (cont.)

Access/CDC Link Successfully Tested

We've successfully tested the CDC RJE link on United Computing Services (Kansas City, Mo) CYBER 7328 operating under KRONOS 2.0 and Boeing Computing Services (Seattle, Wash.) CDC 6600 operating under KRONOS 2.1. Also, the University of Washington in Seattle which is an Access test site has tested it with their CDC 6600 operating under SCOPE 3.4.3.

Access/RJE Connection to CDC

Connection to the CDC host is provided by:

1. The system operator who initiates the telephone link and enters 200 UT commands through the Access system console. In this mode, the Access system emulates a 200 UT remote batch terminal configured with its normal contingent of I/O devices i.e. console, one line printer and one card reader.
2. User-written BASIC programs that access the 200 UT emulator software to transmit and receive RJE data, check job status and issue 200 UT commands. This can be performed from any terminal on the system.

A BASIC programming example showing how easily this can be done is illustrated in the Access Field Training Manual (5952-5528) on Page 21.

Does TSP/2000-HASP Work With CDC?

TSP/2000-HASP is an interactive application program written in BASIC that schedules and spools only IBM HASP/RJE on the Access System. It is an HP-written program that provides a generalized procedure for the terminal user to access the IBM multileaving HASP workstation emulator. However, not having such a program for CDC doesn't limit

the terminal user from accessing the total CDC RJE capabilities on the Access System. All the capabilities supported by TSP/2000-HASP are programmatically accessible to the user who wishes to write a BASIC program that performs only a portion or all the functions of TSP/2000-HASP.

For more information on TSP/2000, see the article "2000 Access — RJE VS. TSP/2000" in this newsletter.

Final Note

The preceding information is a general guide to interfacing a 2000 Access System to a CDC computer. Your customer should consult with a qualified CDC system engineer before specifying any additional CDC hardware or software.

Technical References

More information is available on qualifying the CDC host as well as the IBM host in Mel Brawn's recent System Engineering Quicknotes #219, 220 and 221.



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CUSTOMER ENGINEERING CORNER

ADDITIONS/CORRECTIONS TO NOVEMBER 1ST PRICE BOOK

by Al Wagner - DSD

The following additions/corrections should be made to the 1st Nov. '75 Maintenance Price Book Part I

2100S-BMMC = \$134
2617A-BMMC = \$147
13053A/BMMC = \$150
30133A/BMMC = \$153

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COMPETITIVE CORNER

A "BENCHMARK RESULTS" FILE

by Jean Toth Kelley - GSD

Recurring questions for benchmark results have prompted this request to you, the field - - -

Please send all 3000CX benchmark results to me in Sales Development. I'll file them and quote the statistics for sales situations. **Do not send software!** Please just a one-page writeup describing the environment (program and job mix), the language, the competition, the results, and a contact name for info.

Use GSD Sales Development to help you sell!

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NEW COMPETITOR FOR THE 21MX

by *Wayne Gartin - DSD*

Texas Instruments recently announced a new product line, the 990 Series. It's not clear exactly how they will position the line, but it should supersede the older 960 and 980 lines.

The main competitive advantage the new series offers seems to be the range of processors available. They start with a microprocessor, the 990, and sell it as a component. They package the processor on a board, add 256 words of memory and sell it for \$575. They have a software compatible TTL version packaged on a board with 8K words for \$1975. You can add a 6-slot chassis with front panel and

power supply for \$1100. The end result of all this is they offer an 8K minicomputer for \$3075.

Competitively, we have several advantages. First, while we have no firm performance measures for their processor, the 21MX appears to be twice as fast as the 990/4 and at least as fast as the 990/10. Second, the announced delivery for the 990 series is next April — six months away. Your customers may be concerned over the availability of that product. The third point is that full software compatibility with the earlier 960 and 980 has not been promoted. It may be that they are not compatible.

Here is a partial price list:

TEXAS INSTRUMENTS "990" PRICING

Processor	Memory (words)	List Price	Qty 50
990/4 Board	256	\$ 575	368
Board	4K	800	512
990/4 with	4K	1900	1216
6 Slot Chassis			
Power Supply			
Front Panel			
990/10 Board	8K	1975	
990/10 w/Map File	8K	2900	
990/10 w/Error Correction	8K	2950	
990/10 Map File & Error Correction	8K	3850	

COMPONENT PRICING

Memory	
8K	\$1000
8K w/ECC	1400
40K	2500
Chassis	1100
6 Slot	
Power Supply	
Front Panel	

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CONTRACTS CORNER

NEW OEM WARRANTY OPTION

by *Chuck Silberstein - CSG*

We have just completed updating the Computer Systems Group purchase agreements. They are at the printer's and should be available in a few weeks. Part of the updating included adding a new Exhibit W to the Combo and OEM Agreements. By selecting this exhibit at the time he signs the agreement, the customer will receive an additional two (2) percentage points of discount on all OEM purchases of Type I, III, IV, and V products. This applies for the term of the agreement and not on an individual order basis. In addition, he receives a thirty-day warranty in lieu of our standard ninety-day warranty. During the thirty-day warranty period, we will repair or replace products which prove to be defective in materials or workmanship.

At HP's option, HP may provide on-site repair for certain products listed on Exhibit W if the repair site is within fifty miles of a designated HP service office. Otherwise all products must be returned to HP at Buyer's expense for warranty repair or replacement.

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OEM CORNER

SERVICE NOTES FOR OEMS

by *Tom Winker - DSD*

Hewlett-Packard distributes Service Notes to all HP service personnel. Service Notes contain information relating to repair, improvements, spares, etc. DSD provides a Service Note distribution service for our products, which is available to your OEM's. This allows our OEM's to be aware of the service-related aspects of our products and to effectively maintain HP products properly.

You may add OEM's to the distribution list for *Data Systems products* (CPU's and Discs) by providing *Joey McHugh* (Bldg. 40) with:

Customer name
Address
Contact
Products purchased

Limit — one distribution per OEM please.

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EDUCATIONAL NEWS

NEW DIRECT MAIL/SHOW FLYER FROM EDUCATION

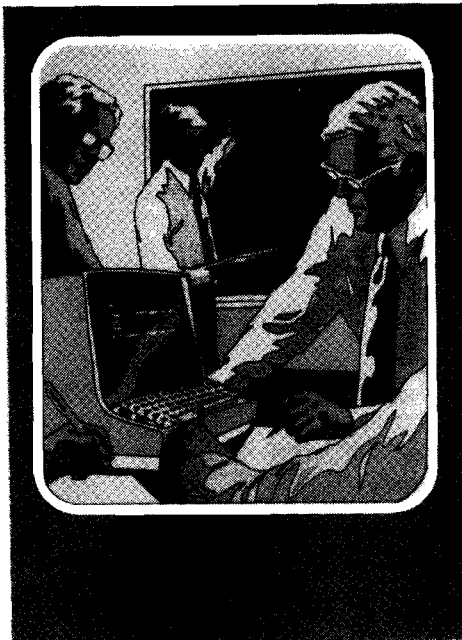
by Jean Danver - GSD

Just off the press is a general purpose direct mail/show flyer for education. Designed to present the full spectrum of products and capability, it summarizes HP's instruction, administrative and network capabilities, and presents the main features of the 2000, 3000, 9600 and DOS. An inquiry card is included, postage paid to General Systems Division.

This is a good piece to do a general inquiry direct mail or an inexpensive give-away for shows and conferences. The flyer is #5952-5569 and can be obtained from the literature depot.

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On-Line
Data Processing Systems
For Education Mean...



GROUP NEWS (Late Entry)

"21XX DATA COMMUNICATIONS PREFERRED INTERFACES"

by Fred Gibbons - DSD

During a recent meeting of the Data Communications Business Team, the 21XX Data Communications Interfaces were reviewed. The objective of the meeting was to identify preferred interfaces and their application. The list below summarizes the team's recommendations. We urge FE's to specify these interfaces in new systems.

21XX DATA COMMUNICATION INTERFACE REVIEW SUMMARY

	MODEL	NAME	PURPOSE OF MODEL
ASYNCHRONOUS			
Low Performance	12531C	Teletypewriter Inter.	- TTY INTERFACE - Hardwired or manual modem - Current loop or EIA RS232C - DOS & RTE support
	12531D	Terminal Interface	- TERMINET AND CRT (Character Mode) - Hardwired or manual modem - Current loop or EIA RS232C - DOS & RTE Support
Medium Performance	12968A	Asynch. Comm. Interface (2 character Buffer)	- GENERAL PURPOSE ASYNCHRONOUS INTERFACE - Hardwired or modem connection - Current loop or EIA RS232C - DOS support
High Performance	12966A	Buffered Asynch. Comm. Interface (128 character Buffer)	- PAGE MODE ASYNCHRONOUS INTERFACE - Hardwired or modem - EIA-RS232C - DOS & RTE (2640/2644) SUPPORT
	12920B	Asynch. Multiplexer	- CHARACTER MODE TERMINALS - Hardwired or modem - DOS support - RTE contributed driver
SYNCHRONOUS			
	12618A	Synch. Comm. Inter.	- GENERAL PURPOSE SYNCHRONOUS INTERFACE - Half or full duplex - 9600 Baud - DOS support
	12967A	Synch. Comm. Inter.	- GENERAL PURPOSE SYNCHRONOUS INTERFACE - Half duplex - 20,000 Baud - DOS support
MISCELLANEOUS			
	12589	Auto Dialer Inter.	- DOS support
CPU TO CPU			
	12869	Hardwired Serial Inter.	- DOS support - RTE support

**Computer
systems
newsletter**
For HP Field Sales Personnel

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