HEWLETT hp PACKARD

Computer systems newsletter

Vol. 3 No. 4
Jan. 5, 1976

For HP Field Sales Personnel

DIVISION NEWS

"NUMBER 3000 IS DELIVERED"

by Eric Grandjean – DTD

Hewlett-Packard Company has delivered its 3000th model 2640A CRT computer terminal just twelve months after shipments began in December of last year.

The 3000th unit was included in an order for eight computer terminals delivered to Luther College, Decorah, Iowa where it will be used on Luther's HP 3000 Mini Data Center.

In a special ceremony this week at the college, *Tom Anderson*, Hewlett-Packard Product Manager for the 2640A, presented unit #3000 to *Ed Thorland*, Director of the Computer Science Department of Luther College.

Luther College is a liberal arts college of about 2000 students. In addition to the 2640A terminals, the college is using an HP 3000 minidata center and an HP 2000 access system for handling administrative functions and instructing students in computer science courses.

The model 2640A is an intelligent CRT terminal with semiconductor processor and memory and is for use in data access, time sharing, and data entry applications.

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In This Issue . . .

GOING EAST

by Eric Grandjean – DTD

"Both Cyrillic and Roman Character Sets are offered on HP Terminals designed for foreign markets . . . ."

That was the caption of one of our press releases; and now . . . . we have just shipped our first production run of 2640C Terminals to the Central Clinical Hospital in Moscow and to The Institute of Experimental Medicine in Leningrad!

The 2640C is capable of displaying the full 128 character Cyrillic Set, in addition to the standard 64, or optional 128 Roman Character Set.

Both sets can be generated from the same keyboard, with all symbols labeled and located in the accepted keyboard positions. Pressing a single selection key converts the terminal from one script to the other, allowing any mix of characters from both sets. Line drawing and math symbol sets are also available as options. Display enhancement and four kilo bytes of user memory are standard on the 2640C. Memory can optionally be expanded to 8 KB.

All ordering details can be found in your CPL microfiche and, of course, they are also available at 12% discount in packs of six or more. (Allow ample delivery time.)

For demos in Europe, contact our sales office in Vienna and talk to *Rene Alder* and his group. In the USA, you know where we are.

Going East — or anywhere else — the 2640C is alive and well!

PRODUCT NEWS

HELP!

by Ron Morgan – DSD

One of our growing problems in designing products for the international marketplace is the many Product Safety requirements. They vary significantly depending on geographical location. Trying to get specific requirements from the various agencies is very difficult.

We are presently conducting a survey to find out exactly what your market needs are and how we can design to fill those. To do this, I need your help!

I am in urgent need of information leading to specific safety requirements for our products due to national laws, state or city codes, customer demands, etc. When I speak of "our products", I am referring to computers, terminals, or systems that may be installed in an office environment, Data Processing center, Commercial building, Educational facility, Medical facility, any place we may find our products in operation.

If you know what the requirements are in your area, please drop me a note with the information you have. If you're not sure, please take a few minutes to contact the Safety Agency having authority in your area and inquire as to what the requirements are.

Any help you can provide would be appreciated. It could save us considerable pain in the future.

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CORPORATE PRICE LIST CHANGES FOR GENERAL SYSTEMS DIVISION

by Ed North – GSD

On January 1, 1976 prices will change for several General Systems Products. The products affected are the 1600 bpi mag tape, the card reader, the card/reader punch, the paper tape reader, and the paper tape punch.

One favorable pricing "loophole" will end with the price increase of the 1600 bpi mag tape option. The new price is now in line with the price difference Boise charges for this mag tape unit. Other price changes reflect increased costs of peripherals passed on to us by our suppliers.

Product	Product Number	Old Price	New Price
Mag Tape 1600 bpi Opt.	30115 -100	$1500	$2525
Mag Tape 1600 bpi Opt.	30000C -100	$1500	$2525
Mag Tape 1600 bpi Opt.	32400C -100	$1500	$2525
Mag Tape 1600 bpi Opt.	32401C -100	$1500	$2525
Mag Tape 1600 bpi Opt.	32402C -100	$1500	$2525
Card Reader	2892A	$5165	$5800
Card Reader	12985A	$5665	$6300
Card Reader	30106A	$7160	$7700
Card Reader/Punch	2894A	$11,200	$13,700
Card Reader/Punch	12989A	$12,450	$15,000
Card Reader/Punch	30119A	$13,500	$16,000
Paper Tape Reader	30104A	$3350	$3585
Paper Tape Punch	30105A	$4225	$5000

KODAK MTRS 93727A

by Frank Jackson/Randy Edmonds – DSD

There appear to be some doubts as to HP's policy in regard to integration, installation, warranty and service of the 93727A hardware only system. I hope the following clarifies these points:

- Systems Integration — Done at the factory and includes racking and cabling per Kodaks specification and the running of HP hardware diagnostics.
- Field Installation — Normal HP installation policy applies — field CE installs hardware and runs the hardware diagnostics. Additionally the CE is asked to show the customer the operation of the HP hardware. As Kodak is the only supplier of MTRS software it is their responsibility to install the software system and instruct the customer in its operation.
- Warranty — HP's standard hardware warranty applies.
- Service Contract — Each installation will negotiate a hardware service contract with the local HP office as required.
- Service Calls — Unless there is an obvious hardware failure customers should be calling Eastman Kodak for system assistance. Eastman Kodak has the overall system responsibility, and unless arranged otherwise between Kodak and the local HP service facility, HP should demonstrate satisfactory hardware by the running of standard HP diagnostics. There are bound to be occasions when Kodak will need further assistance to get the system operational and these should be worked out on an individual basis.

IMPROVEMENTS IN 21MX MEMORY RELIABILITY

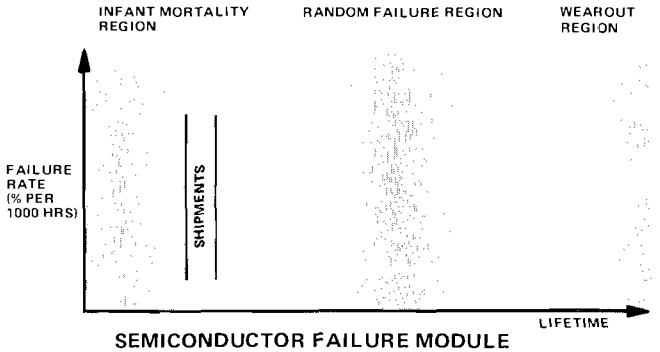
by Jan Hofland, Wayne Gartin – DSD

Several times recently we've been asked for a more complete statement of what we mean by "semiconductor memory reliability" and what can be expected from a 21MX when it is delivered.

In November we made significant improvements in memory testing, resulting in a much lower initial failure rate. The following explanation should be of interest.

Semiconductor reliability studies have shown that there are typically three regions in the life of a semiconductor (see figure 1). The first region is called the infant mortality region and is characterized by a dropping failure rate with time. Devices that fail early in their lifetime typically have weak or "sick" performance due to normal process defects such as minor wafer imperfections. After several hours of operation the parts enter the random failure region. This region is characterized by a failure rate that's relatively independent of operating hours. Far out in the lifetime (many years) is a wearout region characterized by an increasing failure rate

with time. The random failure region is also referred to as the "mature product" area and it is from here that reliability data and MTBF calculations are made. This region (time period) is the source of data for the "21MX Engineering Evaluation Report."



SEMICONDUCTOR FAILURE MODULE
FIGURE 1.

The 4k RAMS used in the 21MX memory system generally obey this failure model. The objectives, then, of our production testing is to identify and eliminate as many of the infant mortalities as possible. Our RAM vendors perform functional and parametric tests on all parts shipped. Unfortunately it is economically impractical to do exhaustive testing at the vendor level (test times of several seconds are considered high for a vendor, while we test for many hours). Therefore, we have instituted 100 percent testing of the RAMS during production. We are currently performing functional testing of the RAMS at the component level, at the board level, and at the system level. In addition, a high temperature burn-in is performed to accelerate the infant mortality failures and weed them out prior to shipment.

We continue to upgrade our test procedures and encourage the vendors to do a more effective screen prior to shipment. In the last few months we have added some tests which have had a significant impact in reducing the effective memory failure rate at system shipment. Figure 2 shows our observed failure rate prior to instituting the additional testing and our initial results with the added testing. Note that the failure rates increase very early in life. These curves show that the vendor is doing a more effective screen because the peak of the curve occurs earlier in our production cycle. The higher peak can be attributed to more effective testing. To you and your customer, the most important part of the curve is the point where shipment occurs. As you can see, failure rate has been considerably improved at this point. This means that our customers will see far fewer early memory failures and will experience significantly fewer failures during system lifetime.

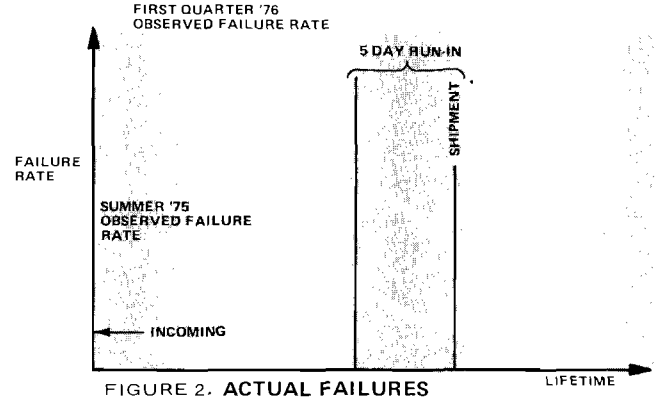


FIGURE 2. **ACTUAL FAILURES**

A FRIENDLY REMINDER

Computer Museum

by Bob Hoke – DSD

This article is just a reminder that either an RXX option (system console) or a 444 Option *must* be ordered with any 96MX system. The 444 option for $400 provides for integration without a system console.

Another point that may need clarification is that an R90 or an R91 option is *not* counted as a 2640A for purposes of six-pack discount. Add-on 264X terminals will be ordered from Data Terminal Division and, if six or more are ordered, will be discountable.

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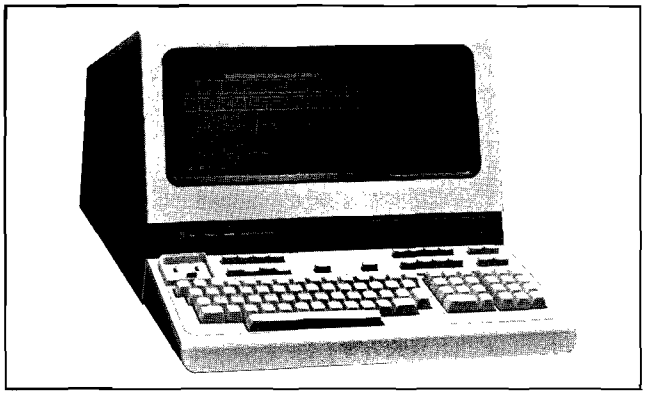
13246A PRINTER SUBSYSTEM NOW DISCOUNTABLE

by Jim Elliott – DTD

The 13246A printer subsystem comprised of the 9866A printer, 13238A interface card and 13238A-001 interface cable is now discountable when purchased with 6 or more 2640 series terminals. With this change we have dropped the 264X-012 option from the corporate price list, and there is no adverse affect. You can still get a "super quiet" dot matrix, thermal printer subsystem to help close that big terminal order.



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QUESTIONS ON THE 2640 SERIES TERMINALS — PART III

by Jim Elliott – DTD

In the Sept. 5 issue of this newsletter I talked briefly about the 2640A and 202 modems. A review of that article may be helpful here.

1. **I have a 2644A, operating in half-duplex and Block Mode using a 202C Modem with straps G and H out. Now that the requirement for the DC1/DC2 handshake software support in the CPU is eliminated, why is it that communication with my CPU fails.**

   Ans. The 2640 series terminals' firmware monitors the reverse channel for line turnaround requests from the CPU. Again verify that the Modem has the reverse channel option and that your CPU supports it.

(Continued on page 4)

2640 Questions (cont.)

2. **I have recorded a diagnostic routine from the display onto a cartridge tape in the 2644A. When transmitting this diagnostic to my CPU, line feeds are also transmitted causing my CPU to reject the data. How do I get around this problem?**

   Ans. When transmitting from the tape to the CPU make sure the Auto LF key is up.

Hope this brief explanation helps.

TERMINAL MEMORY CONFIGURATIONS VS. CONTROL CODES

by Rich Ferguson – DTD

Because of different upgrade situations, a number of questions have come up regarding the number of control codes that can fit on one line of display for different memory configurations. *Remember that this does vary depending on the types and amounts of memory modules installed.* Below is a table of the different memory configurations possible and the maximum number of control codes possible on a single line:

Total Memory	1K	2K	4K	Maximum Control Codes
1K	√			54
2K		√		44
3K	√	√		44
4K			√	100
4K		√√		36
5K	√		√	54
5K	√	√√		36
6K		√	√	44
6K		√√√		26
7K	√	√	√	44
7K	√	√√√		26
8K			√√	100
8K		√√√√		16

Regardless of the length of the escape code sequence used for controlling either protected fields or changes in display enhancements or character sets, it is still counted as only one control code. For example, the sequence ESC & pB turns on inverse video. Even though there are four characters needed here, it is still only counted as one control code.

On upgrades, pay particular attention to how your customer uses the terminal and help him avoid upgrading to a configuration that might affect his operation i.e., if a customer has 3K memory and might want to upgrade later to 5K, sell him 5K memory up front. One additional 4K module will solve the situation. Otherwise, upgrading from 3K to 5K will involve two-2K modules. This could affect your customer operation since the maximum amount of control codes per line goes from 44 to 36. If you need any assistance call your sales development contact.

Good selling!

LONGER CABLES FOR TERMINALS

by Rich Ferguson – DTD

There are times when you need to put a terminal farther away from the computer than standard cable length will allow. The cable part numbers that follow are the cables contained in the following standard cable assemblies. Order the part from CPC in the length you need.

Instrument	Description	Cable Assembly	Cable Part Number
13232A	103/202 Modem Cable	02640-60043	8120-1903
13232C	RS232C Female Cable	02640-60059	8120-1903
13232F	Current Loop Cable	02640-60097	8120-1871
13232G	Male Printer Cable	02640-60098	8120-1857
13232H	Female Printer Cable	02640-60099	8120-1857
13232J	9871 Printer Cable	02640-60116	8120-1950

When consulting with customers, pay attention to baud rate vs. distance requirements; since HP will not be able to fully support custom cable lengths due to the large variations in applications and environments.

If you don't want to roll your own, you can still order the standard extension cables. These are 25-pin, straight through connections.

Part Number	Length
30062-60006	25 ft.
30062-60009	50 ft.
30062-60012	100 ft.

HAVE A SYSTEM 3 PROSPECT?

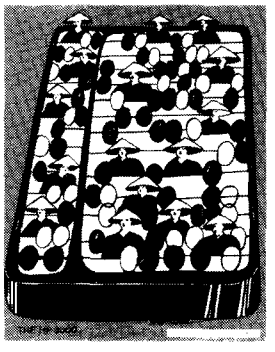
by Carol Scheifele – CSG

". . . . but I.B.M. still refused. So I said to them, 'Fine, we'll hire sixteen little men with abacuses before you'll see another dollar of ours.' " states an August *System 3 World* article which traces Signal Insurance Company's decision to go the HP 3000 route. A four page reprint of their convincing story is available simply for the asking. Mail requests to *Carol Scheifele*, Cupertino.

Please forward _____ copies of the *System 3 World* article to me ASAP.

Name _____

Office _____

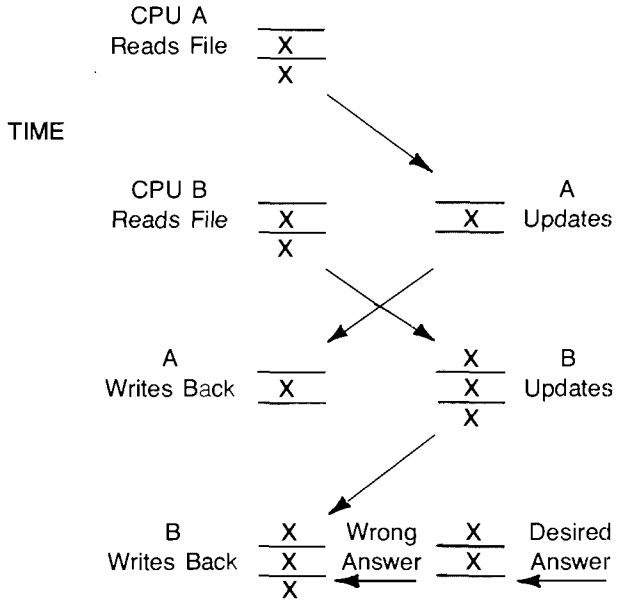


MULTIPLE CPU ACCESS TO 7905 — PART 2

by Vijay Kapoor - DSD

In the last issue, you saw how two 2100/21MX processors can share space, but not individual files, on one or more 7905's, by using 13178A — the multi-CPU kit. This time, let us examine file sharing under RTE.

The challenge of file sharing is of course file protection. Any time a processor updates a file, it must lock the *file* to itself, or else risk the file to be clobbered in the meantime. To illustrate the problem, consider this simplified example.



In RTE-II and III, there *is* provision for locking in, *but only at the subsystem level.* This means that under RTE any CPU, when it wants to, can lock the 7905 controller and therefore all the associated drives to itself until it is done. This is explained in Appendix B of the RTE-III Programming and Operating Manual. In an initial test done on 2 CPU's sharing a 7905 disc, even reserving the entire subsystem to do file updates did not result in noticeable system degradation. The degradation would be worse, of course, as the number of disc drives per controller increases.

For reserve/release at the individual file level, the following is needed:

1. A CPU-CPU link to establish a master/slave(s) relationship. This can be implemented in a number of ways. Three cards that have some driver support or the other *and* are good candidates, are:
   (A) 12889 — High Speed Serial Interface
   (B) 12771 — DS Serial Interface
   (C) 12566B — Microcircuit Card
2. An applications program that essentially assigns a resource number to a requested file to resolve contention. I am assured this is a relatively straightforward programming challenge.

APPLICATIONS

Sharing disc storage, with shared files, appears to be a powerful tool to sell more RTE systems. In general, it is useful anytime you need more processing power in a system than is available with only one CPU. Let me suggest a couple of exciting configurations in the next issue.

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RTE-III SOURCE AS SPECIAL

by Hugh Amick - DSD

RTE-III Source Tapes (not including BSM) are now available as a special provided on 800 BPI Mag Tape and listings on paper. The product is 93597N at $9,250 with three-week availability.

This special should only be ordered by customers desperately in need of the RTE-III source. The standard product at a price below $9,250 will soon be released.

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SALES AIDS

"LIVING SUCCESSFULLY IN A TERMINAL ORIENTED WORLD" SEMINAR MATERIAL AVAILABLE

by Ralph Manies - GSD

To order your copy of the recent "Living Successfully in a Terminal Oriented World" seminar material, send an IOS to *Bob Hall, GSD,* 5303 Stevens Creek Blvd., Santa Clara, CA 95050. Order by specifying SYS/3; price is $75. Availability is 7-10 days after receipt of IOS. The material includes one set of 35mm slides, a cassette copy of the "INTRODUCTION TO THE HP 3000CX SYSTEM" (90543), and an instructor's guide. Please specify reel-to-reel tape on your IOS if you want reel-to-reel in *place of* the cassette.

Comments by seminar attendees show that this is an excellent set of materials. With your individual enthusiasm and professional salesmanship, you are sure to identify high potential prospects in your area!

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DID YOU KNOW?

by Eric Grandjean - DTD

- The power cords of the 2640A and 2644A we are shipping outside of the U.S. have the correct plug style to fit into the local power outlets. This is an extra measure of service provided by Data Terminals Division.
- The calculator Sales Force is also selling the 2640A as a calculator terminal. Look under 9882A in your CPL. We should soon be able to reciprocate and sell the 9871A as a terminal printer. Our target introduction is January, 1976.

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SALES ENGINEERS' CORNER

3000 FOR LIBRARY DATA BASE

by Dennis McGinn – SSR

Virginia Tech (VPI) has just installed a 3000C/50 with two large disc drives to provide total library check-in/check-out and circulation control under IMAGE. The information will be provided to the 3000 by a CRT/light pen combination which will read a bar code on the book. VPI is able to buy the CRT/light pen combination for $2,500./copy. The only competition in this area is a company called CLSI who uses a pdp 11 and charges 250K — this indeed is a market of opportunity at every large college and university.

Congratulations to *Doug McArthur* and *Steve MacKenzie* for a successful and innovative sale.

Doug McArthur

Steve MacKenzie

HEWLETT PACKARD

RECENT 3000 CLOSINGS

by Jean Toth Kelly – GSD

Gary Cole, FE Salt Lake City, made an interesting 3000 sale to NAVSAT, a division of Satellite Navigation Corporation, with the help of our Computer Systems COMBO Agreement. They qualified for an 8% discount on their first 3000 procurement. This account provides a service for ship's masters and operators to ensure that a collision or navigational hazard is promptly recognized and that prudent and timely action can be taken.

A large data base on the 3000 forms the central computer with links via the programmable controller to 21MX based systems located on shipboard. Communications are accomplished via satellite.

Multiple systems potential is excellent with this growing young company. *Chuck O'Daniels* was the SE on this sale. Congratualtions *Gary*!

Reed Hilliard of Neely Santa Clara closed a 3000 sale to new OEM Advanced Technology. They are developing an in-house business system for PIC'N SAVE STORES in L.A. using IMAGE, COBOL, RPG, and BASIC. HP's primary competition was the DG Eclipse. The deciding factors were proven 3000 performance and it's tremendous flexibility. Advanced Technology saw the risk of systems design with the 3000 as minimal and the flexibility of adding new OEM applications as great.

Congratualtions *Reed* on your super sales effort.

F.E. *Ron Johnson* and S.E.'s *Norm Alexander* and *Terry Anna* recently closed two 3000 orders to Rocky Mountain Bank Note. It was an eleven-month effort to replace two SYSTEM/3's. This company prints personal and business checks, along with stock certificates and installment loan coupons. During the final six months, competition was a DEC 11/70 and an IBM SYSTEM/7 frontend to existing SYSTEM/3's. DEC was eliminated because they could not demonstrate RPGII. IBM was eliminated because of poor terminal response time and a $1500/month price tag over the HP 3000. Other factors to sell around were the long term lease and the absence of SE/CE support in the Denver area. Reference selling solved both these issues. Congratulations *Ron, Norm* and *Terry*!

Reed Hilliard

Ron Johnson

Norm Alexander

Terry Anna

HEWLETT PACKARD

THE TOP 3000 SALES ENGINEER

by Jean Toth Kelly – GSD

In the last two years, *Bob Ulery* sold six 3000's (4 in fiscal '75). His latest close is an OEM, Professional Computer Services, a commercial service bureau doing accounting and manufacturing applications. PCA proposed a benchmark using the IBM Commercial Subroutine Package and the IDEAL routines:

1. DEC and GA could not "demonstrate"
2. HP had commercial reference accounts

These two factors along with *Dave Walmsley's* successful benchmark helped *Bob* get the order.

Bob Goodman Lt. & Bob Ulery, Rt.

HP Computer Museum
www.hpmuseum.net

For research and education purposes only.

PCS signed for two 3000's and plans to market a turnkey factory automation/financial management package.

Congratualtions *Bob*!

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CONGRATULATIONS TO KEITH CHARLTON

by John Streeter – DSD

Litton - Canada, recently signed an OEM contract with DSD. *Keith Charlton*, F.E.-Toronto, landed the contract and initial order for several 2108/2640/2644's with RTE and Distributed System software. Litton will be using our hardware to monitor the performance of ships. Distributed Systems will aid their program development efforts.

Hats off to Keith! Keep those OEM contracts coming!

Keith Charlton and his secretary Pauline Allen with demo system used to land Litton OEM contract.

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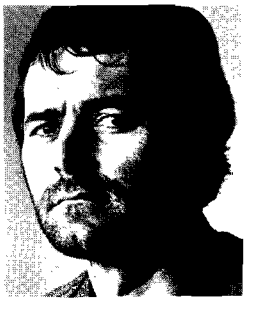
RON GUYOTE STRIKES AGAIN!

by Stu Kagan – DSD

It's been a long, hard year for us all. But for some of you Field Engineers, fiscal '75 was most trying. Take *Ron Guyote* for example.



Would you buy a computer from this man?

But the dawning of '76 has happened and there's a new year of business to be found.

Ron, with OEM blood surging through his veins, has closed a new account called Lorac Service Corporation. With his assistance, they have chosen the 2108A as the CPU to control their navigational system used for seismic work in the exploration of oil.

Lorac chose HP because of the reliability of hardware, it's ruggedness, and it's use in the oil exploration industry.

The contract is for 15 systems and was closed with the help of the infamous "Ess Eee," *Frank Letts*.

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Sell those OEM's!

CONTRACTS CORNER

SOFTWARE SERVICE POLICY REVISED

by Al Wagner – DSD

The services provided under the Software Maintenance Agreement program have again been redefined. Actually we are reverting back to the original concept of *installing* updates. This may be somewhat confusing so I shall elaborate.

When the program was first begun in September and October 1974, the program provided the following services:

1. Installation of software updates and revisions
2. Providing of software manual supplements and revisions
3. Providing of user information such as newsletters and status and change notices
4. Remedial maintenance to verify and report problems and implement changes to correct problems.

In May of 1975, Item 1 was changed to *distribution* of software updates instead of *installation*. However, 3000 and 2000 Timeshare customers would continue to get installation. Users of DOS, RTE, et al, would get distribution of software updates and would have to implement those changes themselves.

As it turns out, that change got us slightly off-track from an otherwise sound support program.

We are now going back to our original concept and revising the Customer Maintenance Agreement form and other supporting documentation accordingly. The revised agreement form will be in bulk distribution to all offices shortly.

Additionally, as you may know, we have had a Software Subscription Service program but no agreement form on which to sell the service. We now have the form drawn up and it also will be in bulk distribution soon. You will see it both as a stand-alone agreement and as an exhibit to the basic Customer Maintenance Agreement form. The latter will accommodate selling both services with the same agreement form.

Both of these software service programs are gathering momentum and becoming major contributors to our service and division sales dollar figures. The mechanics which make these programs function have advanced to the point where they can begin to demonstrate how our support capabilities have developed.

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GSA CONTRACT #GS-09S-35076 FOR TERMINALS (SUPPLEMENT TWO)

by Ampy Soriano – CSG

The following items have been deleted from this contract

Option 005 (To Model 2640A)
Option 006 (To Model 2640A)

(Continued on page 8)

GSA Contracts (cont.)

The following items have been added to this contract

2644A-001-008
13232A
13232C

Distribution is being made. Refer inquiry to *Dave Asplund*, 1800 Embarcadero Road, Palo Alto.

POTPOURRI

"INTRODUCTION TO THE HP 3000CX SYSTEM" — VIDEO TAPE

by Ralph Manies – GSD

The video tape "INTRODUCTION TO THE HP 3000CX SYSTEM" can be ordered from *Chris Bonetti*, Bldg. 18, under catalog number 90543. The presentation is the 8-minute tape used in the Living Successfully in a Terminal Oriented World Seminars. Order by IOS to *Chris*, specifying title and catalog number *followed by suffix "D" for a cassette*, or *suffix* "C" for open reel.

Price for the tape (cassette or reel-to-reel) is $25.00

If you want slides and the tape, order as a complete presentation (see following article).

HP 2000F TIMESHARE SYSTEM

by Carol Scheifele – CSG

Thought you would be interested in seeing the following article which appeared in the Nov. 12, 1975 issue of Computerworld:

No Problems With Hardware

In the letter from Ed Tunstall [CW, Oct. 15], it was difficult to get a real feeling for his problems.

We installed a Hewlett-Packard 2000F time-sharing system June 1, 1972 (about 29,764 hours ago). All downtime comes to about 185 hours – preventive maintenance (about five hours every three months) 70 hours, power failures 15 hours and hardware and software problems about 100 hours.

Our system runs 24 hour/day, seven day/week. Our single biggest problem is the aging of lamps used for position control in the disk drives. They need to be replaced every nine to 12 months. Otherwise, the system just runs and runs and runs.

Oh yes, our console running 24 hour/day has given a few problems. When this occurs, we simply plug in a terminal to use until the console is repaired. We once ran for two days without a console.

Our service comes from Atlanta, Ga., about three hours away. This does not bother us either. We once thought about an uninterruptible power supply when power failures were occurring every 15 minutes. However, our only problem with power failures is the slow system clock.

All of us take the system for granted. Most of our users don't know what the terms "system down" or "crash" mean.

Fred W. Stone
Manager, Computer Center
School of Engineering
Tuskegee Institute, Ala.

COMPETITIVE CORNER

HP, IBM - AND INDUSTRIAL TRAINING

by Jean Danver – GSD

Wall Street Journal, *Computer Decisions* and *Business Week* were the recent locations of ads by IBM for using computers for industrial training. These ads featured Shell Oil Corporation and Celanese.

The product IBM is pushing is what they call Interactive Training System (ITS), usually running on a 370/158. It is a fancy name for a simple version of Coursewriter III, an author language which also runs on the 2000F and 2000 Access System. We call it Coursewriting Facility or CWF, and even offer a conversion service from IBM to HP.

Now that IBM is pushing industrial training you may run into some of their customers and some of your industrial prospects giving it some thought. HP is right there with a product. The 2000 Access is considerably less expensive and has two languages to write training courses, CWF and HP's language, IDF.

If your prospects feel that thirty-two terminals is a bit much for their application, it certainly won't harm your cause any to mention training as a good way to use those extra terminals.

INTERNATIONAL NEWS

INTERNATIONAL NEWS

by Dave Hancock – DSD

Two more RTE systems are shipping this month to a customer with unique installation environments. These two 9603 systems will be installed on-board Soviet research vessels utilized for ocean floor analysis. The two Soviet submarines are part of a cooperative research project between the Soviet Institute of Oceanology and the U.S. National Science Foundation.

"Polymode Project", managed by the NSF, is a joint study of various segments of the ocean floor, resulting in complete data exchange between the USSR and the USA. The 9603 systems are being mated to scientific instruments and the vessels by a consulting firm in Canada -- the first to embark in 1976. HP-RTE accommodates the submarine application due to its high environmetal specifications, vibration tolerance and ability to operate under less-than-ideal power supply conditions.

Follow-on applications have already led to an order for another RTE sub-system and a 3000 system for ultimate data analysis and plotting applications.

Our thanks to *Bob Creager* and *Frank Cole* — our sales team in Moscow — for this successful sea-going sale. Another case where HP and RTE came out winners in a tough application. RTE goes anywhere!

Computer systems newsletter
For HP Field Sales Personnel

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