

COMPUTER SYSTEMS NEWSLETTER

For HP Field Sales Personnel

REINHARDT, HELMUT
FRANKFURT
HPSA.

HEWLETT  PACKARD

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Coordinated Shipment Update Page 23

In This Issue...

AMD News

Division News

First HP 9580A System! G.Low/AMD [2]

Product News

Effective Immediately! D. Mabey/AMD [2]

CSD Tests 2100—Series Boards

on DTS-70 P. Accampo/AMD [2]

Sales Aids

DTS-70 and the HP 1000 at

NEPCON-West! G. Low/AMD [3]

AMD Current Sales Literature G. Low/AMD [3]

Boise News

Division News

Alic Rakhmanoff Joins Boise

Sales Team J. Whitesell/Boise [7]

Just a Reminder L. Andrews/Boise [7]

Another Reminder L. Andrews/Boise [7]

HP 3070 Profile

3070A Profile Section B. Guidon/Boise [7]

3070A's Help Sell 9600 Systems B. Guidon/Boise [8]

Product News

Optical Mark Readers Ease Semi-

Conductor Test B. Guidon/Boise [8]

Sales Engineers Corner

Using a Stand Alone 7260A on the

3000 Series II B. Guidon/Boise [8]

Your Personal Copy of the 3070 RTE Driver Manual

is in the Mail B. Guidon/Boise [9]

Order Processing

Returning Equipment to Boise S. Bertram/Boise [9]

Rescheduling Orders S. Bertram/Boise [9]

Boise Used Equipment Available S. Bertram/Boise [9]

DSD News

Product News

HP 1000 and Discomputer Prices Have

Been Reduced! V. Diehl/DSD [10]

HP 1000 — 9603R/0611R Link:

91226B Option 002 V. Diehl/DSD [10]

New Product Compatibility Guide .. B. Frankenberg/DSD [10]

Do Not Forget Option 020 On HP 1000

Optional Software V. Diehl/DSD [10]

EINGEGANGEN PER

9. März 1977

The RTE-II/III Grandfather Disc Revisited ... V. Diehl/DSD [10]
RDTs To RJE/1000 Upgrade Kits B. Stevens/DSD [11]

HP 1000 Perspective

Measurement and Control Software:

What's Available D. Hendrix & D. Hannebrink/DSD [11]

Sales Aids

Used and New Equipment at

Super Savings J. Coleman/DSD [14]

Instrument Orders R. Witt/DSD [14]

Order Priority at DSD—ASAP

is Best K. Kormanak/DSD [15]

DTD News

Division News

Win With a Winner! Rich Ferguson/DTD [16]

Product News

Soft Key Application #9 Rich Ferguson/DTD [16]

Soft Key Application #10 Carl Flock/DTD [16]

Data Communications Self

Test, etc. Eric Grandjean/DTD [17]

HPG News

Product News

What Works With What G. Ouin/HPG [18]

International News

B.I.A.S. International Show in

Milan (Italy) G. Retornaz/HPG [19]

GSD News

Product News

ISS Disc Drive Sale P. McGrath/GSD [20]

Competition

3000 Features Summary R. Edwards/GSD [20]

Division News

Management Switch at GSD B. Krause/GSD [21]

HP 3000: Results in a

Service Company R. Edwards/GSD [22]

Used 2000 System For Sale D. Davis/GSD [22]

CSG News

Important-Coordinated Shipment

Update S. Harvey/CSG [23]

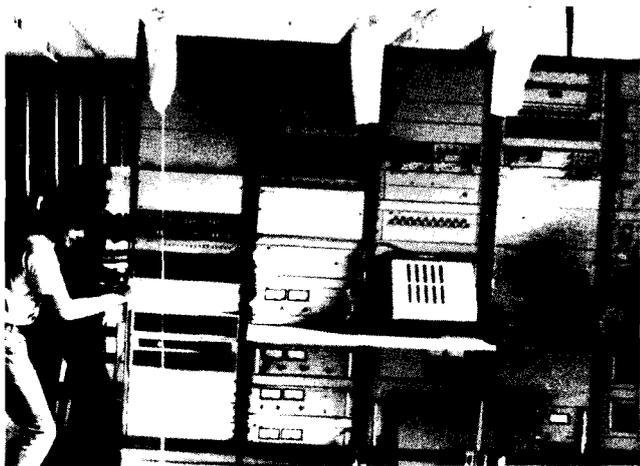
AMD DIVISION NEWS

Division News

First HP 9580A System!

By: George Low/AMD

AMD delivered its first HP 9580A Automatic Test System, our new generation ATE, to a major North American aerospace company as a Beta test site system in December, 1976. The premiere 9580A system, a 5-bay biggie, is the first 9500 series ATS that uses RTE-III and our new microprocessor-based switching products - 9411A Switch Controller, 9412A Modular Switch, and 9413A VHF Switch. It has full analog and digital test capabilities, with a double DTU (300 test pins), the new DTS-70 type PC board test fixture with cableless test adapter, and the TESTAID-III logic simulator.



First 9580A System goes out the loading dock at AMD.

Product News

Effective Immediately!

By: Dawson Mabey/AMD

The 9580A Automatic Test System is now available for use with the HP 1000 Computer System. Contact your AMD RSE for details before quoting!

CSD Tests 2100-Series Boards on DTS-70

By: Paul Accampo/AMD

Larry Turner of the Computer Service Division has released programs on the following printed-circuit assemblies (PCA) of the 2100 series computer for testing on the DTS-70 Digital Test System. These programs are available to your customers on an *unsupported* basis only. Since we don't have a formal procedure for supplying them to you yet, please contact *Jim Severs* at AMD if you have a requirement for them.

1. 12531-60023 TTY Buffer Register PCA
2. 12531-60027 High Speed Terminal Interface PCA
3. 12566-60026 Gnd True Microcircuit PCA
4. 12566-60027 Pos True Microcircuit PCA
5. 12845-60007 Line Printer Interface PCA
6. 12895-60087 2100 Direct Memory Access PCA
7. 02100-60069 (Rev 1132) 2100 ROM Control PCA
8. 02100-60069 (Rev 1144) 2100 ROM Control PCA
9. 02100-60072 2100 I/O Buffer PCA
10. 12597-60003 8-Bit Duplex Register PCA

How effective is the DTS-70? *Larry* receives defective boards from the field for repair and all boards that he receives are bad, and many have intermittent or dynamic failures. Also, common, easy-to-detect faults such as solder splashes and misplaced components do not occur. The following list demonstrates the ability of the DTS-70 to detect faults. Faults that are missed (4% on the average) are intermittent or dynamic conditions which required manual detection and isolation.

PROGRAM	TOTAL NUMBER OF BOARDS TESTED	TOTAL NUMBER OF FAILURES	% EFFECTIVE
12531-60023	5	0	100%
12531-60027	3	0	100%
12566-60026	24	1	96%
12566-60027	6	0	100%
12845-60007	10	1	90%
02100-60069	47	4	91%
02100-60072	7	0	100%
TOTAL	102	6	

Total DTS-70 effectiveness: 94%

Expertise needed for testing? All boards at CSD are being tested by one person who can read a schematic, but otherwise has a non-technical background. This person has been operating the digital test station for about one month and can perform station functional tests and diagnose component failures from the test results. See, it's easy!



Sales Aids

DTS-70 and the HP 1000 at NEPCON-West!

By: George Low/AMD

The DTS-70 Digital Test System, with two 9571A test stations and the HP 1000 System as the controller will debut at the NEPCON-West show at the Anaheim Convention Center, California, on March 1-3, 1977. This show is a major event for people in the industrial electronic manufacturing environment and draws 30,000 attendees and 500 exhibitors. We will be demonstrating multistation production testing, TESTAID-III simulation, and IMAGE/1000 capabilities *CONCURRENTLY* - all four terminals running from the one HP 1000 Computer System.

Make a note for your customers in the area to attend the show. SELL DTS-70's and HP 1000's!

AMD Current Sales Literature

By: George Low/AMD

Here's the current sales literature list for AMD products. Please note that some literature is available only from the division; direct all requests for copies directly to me (not the literature depot). Note also that we are starting a new listing for the measurement and control subsystems that are now back at AMD.

AMD Current Sales Literature

February 1977

Lit. No.	Date	Model	Title
DTS-70 DIGITAL TEST SYSTEM			
5952-8502	3/76	DTS-70	DTS-70 Digital Test System (20-page brochure)
-8504	3/76	DTS-70	91075B TESTAID-III
-8505	5/76	*DTS-70	DTS-70 Digital Test System Training Course
-8534	2/77	*DTS-70	DTS-70 Ordering Information
-8535	2/77	*DTS-70	DTS-70 Technical Description
-8536	2/77	*DTS-70	DTS-70 Management Brochure
-8537	1/77	*DTS-70	Modeling and Simulation for Digital Testing AN 210-1
-8538	1/77	*DTS-70	Designing Digital Circuits for Testability AN 210-4
8500/9500 SERIES COMBINED LITERATURE			
5952-1462	8/74	8500/9500	RF Microwave Test Systems Overview (brochure)
-1472	1/75	8500/9500	Distributed Systems Capability for 8500/9500 (data sheet)
-1476	3/75	8500/9500	Management Brochure for Distributed Systems
-1486	7/75	8500/9500	Training Courses
-8509	9/76	8500 Series	Field Support Kits for 8542B/8580B/8500A Systems
-8510	9/76	8500 Series	8500 Series System Software Subscription Service
9500 SERIES AUTOMATIC TEST SYSTEMS			
5952-1331	11/73	♦9500	HP 9500 Series Automatic Test Systems (16-page brochure)
-1493	11/75	♦9500	Ordering Guide
-1497	2/77	♦9500	Price List (domestic)
-1485	9/76	9500	9500 Series Standard Specials Price List (domestic)
-1381	11/73	9500D	Test Oriented Disc System (6-page brochure)
-1442	9/74	♦9510D	Automatic Test System (12-page brochure)
-1492	9/76	♦9510D	Ordering Guide
-1496	9/76	♦9510D	Price List (domestic)
-1330	11/72	9500	ATS BASIC for HP 9500 Systems (20-page brochure)
-1328	8/72	9500	HP BASIC for Automatic Test Systems (reference folder)
-1402	11/73	9500	Site Preparation, System Handling and Support
-1481	6/75	♦9500/9510D	TESTAID-II/FASTRACE (data sheet)
-1483	5/75	9500/9510D	ATLAS (data sheet)
-1485	7/75	9500	Standard Special Options for HP 9500 Series Automatic Test Systems
-8523	1/77	*♦9580A	9580A Automatic Test Systems Brochure
-8525	12/76	*♦9411A	9411A Switch Controller (data sheet)
-8526	12/76	*♦9412A	9412A Modular Switch (data sheet)
-8527	12/76	*♦9413A	9413A VHF Switch (data sheet)
-8530	1/77	*♦9580A	9580A Switching and Digital Test Subsystems Configuration Guide
(Subsystem Data Sheets)			
5952-1327	10/72	9500-B00-B03	Digital Test Subsystem (8 pp)
-1390	2/73	9500-B10	1 MHz to 1 GHz Vector Voltmeter Subsystem (2 pp)
-1412	4/73	9500-B11	Programmable Distortion Analyzer (2 pp)
-1409	5/73	9500-D03	Programmable Attenuator, 0 to 1 GHz (2 pp)
-1410	4/73	9500-E01-E06	Digital Voltmeter Subsystem (4 pp)
-1411	5/73	9500-E11-E14	Multifunction Digital Voltmeter Subsystem (4 pp)
-1394	1/73	9500-F00-F07	Multifunction High Speed Digital Voltmeter Subsystem (4 pp)
-1387	1/73	9500-H10	550 MHz Timer/Counter/DVM Subsystem (2 pp)
-1397	5/73	9500-H13	Digital Data and Time Clock Subsystem (2 pp)
-1393	1/73	9500-I30-I43	Digitally-Controlled Voltage Source Subsystem (4 pp)
-1391	1/73	9500-I50-I55	High Current DC Power Supply Subsystems (2 pp)
-1406	4/73	9500-I60	DC Voltage/Current Calibration Subsystem (2 pp)
-1386	12/72	9500-L00-L01	Programmable Power Meter Subsystem (2 pp)
-1398	4/73	9500-L10	Programmable Waveform Processor With X-Y Display (2 pp)
-1388	1/73	9500-M00-M02	0.01 Hz to 13 MHz Frequency Synthesizer Subsystem (2 pp)
-1385	2/73	9500-M21-M24	Synthesized Signal Generator Subsystem (2 pp)
-1389	4/73	9500-M30-M31	25 MHz Pulse Generator Subsystem (4 pp)
-1392	2/73	9500-M50-M51	AC Calibrator/High Voltage Amplifier Subsystem (2 pp)
-1405	1/73	9500-M76	Programmable Waveform Synthesizer Subsystem (2 pp)
-1395	3/73	9500-N00-N15 and C00-C23	Modular Switching Subsystem and Interface Panel (12 pp)
(Application Notes)			
5952-1370	8/71	AN 135-12	Depot Testing of Avionic Modules (6 pp)
-1631	9/72	AN 135-19	Testing Thick-Film Hybrid Circuits (6 pp)
-1441	10/73	AN 135-21	Viggen Avionics Support (12 pp)
-1428	9/73	AN 135-23	Television Set Production Revolutionized by Automatic Alignment and Test (6 pp)
-1458	11/73	AN 135-25	Automation in Production Testing (4 pp)

* New since last AMD Current Literature List.

♦ Available from AMD only; not stocked in Literature Depot.

◆ Brochure and/or data sheet and corresponding configuring or ordering guide should be sent together in response to queries.

HP Computer Museum
www.hpmuseum.net

For research and education purposes only.

Lit. No.	Date	Model	Title
(Training Manuals, Proposal Packages and Tech Notes — available from division in small quantities)			
5952-1413	12/74	●9551D	Calibration Application Summary for HP 180A Oscilloscope (TechNote 74-1)
-1416	12/74	●9551D	Calibration Application Summary for HP 1821A Time Base and Delay Generator (TechNote 74-2)
-1415	12/74	●9551D	Calibration Application Summary for HP 1801A Dual Channel Vertical Amplifier (TechNote 74-3)
-1417	12/74	●9551D	Calibration Application Summary for HP 400E AC Voltmeter (TechNote 74-4)
-1418	12/74	●9551D	Calibration Application Summary for HP 410C Voltmeter (TechNote 74-5)
-1474	4/75	9500/9510	Successful Digital Test Interfacing (Technote 75-1)
-1494	1/76●	●ATS	Automatic Test System Purchase Specifications

8500 SERIES AUTOMATIC MICROWAVE TEST SYSTEMS

5952-1460	6/74	8542B	Automatic Network Analyzer (data sheet)
-1440D	8/76	8542B	Ordering Information (domestic)
-0993	1/71	8543A	Automatic Network Analyzer (data sheet)
-1488	11/75	8580B	Automatic Spectrum Analyzer for Component and Subsystem Test (data sheet)
-1495D	8/76	8580B	Ordering Information (domestic)
-1471D	2/75	8542B/8580B	92817A OPNODE, with U.S.A. prices (data sheet)
-1471	2/75	8542B/8580B	92817A OPNODE, less prices (data sheet)
-1475	1/75	8542B/8580B	Test-Oriented Disc System (data sheet)
-1477	3/75		ARS-400 Automatic Receiver System (18 pp)(data sheet)
-1478	9/76	8580B Opt. 400/401	Ordering Information for ARS-400
-0980	9/70		Hewlett-Packard Automatic Network Analyzer — An Investment Analysis
-1484	5/75		11610A Semi-Rigid Cable (data sheet)
-8510	9/76	*●8542B/8580B/8500A	8500 Series Systems Software Subscription Service
-8509	9/76	*8542B/8580B/8500A	Field Support Kits for 8542B/8580B/8500A Systems (Ordering Information)

(Technical Support Material — available in small quantities through Divisional Regional Sales Engineers)

5952-1463	9/74	8542B	Network Analyzer Performance Verification Data
-1369	9/74●	8542B	Purchase Description
-1498	6/76	8580B	Spectrum Analyzer Performance Verification Data
-1368	10/74●	8580B	Purchase Description
	4/74	8580B	Demonstration Guidebook

(Article Reprints)

5952-1196	6/73	●8542B	<u>Microwaves</u> : Special Report on Automated Measurements
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MEASUREMENT AND CONTROL SUBSYSTEMS

5952-8506	10/76	*9603R/9611R	Measurement and Control Peripherals (Technical Data Book)
-8507	11/76	*9603R/9611R	9603R/9611R Configuration Guide

- Available from AMD only; not stocked in Literature Depot.
- Date does not appear.
- * New since last AMD Current Literature List.

AMD VIDEOTAPES

ORDERING

Order video tapes on I/O forms from Chris Bonetti, Video Products, Building 18, Palo Alto (COMSYS number 0700). Emergency telephone or TWX requests accepted only if complete ordering information is supplied.

Price per tape is \$25; no credit allowed on returned tapes.

PROGRAM TYPES

The programs listed below are classified by the following types according to the primary use for which they were generated:

Sales Support:	For customer viewing in support of sales presentations.
Sales Training:	Information about AMD products and product applications.
Customer Training:	Instructional material on the application and operation of systems; primarily for use in customer training classes at AMD.

VIGGEN AVIONICS SUPPORT Catalog No. 90030-799

Time: 15 minutes Date: 10/73

Sales Support

Shows 9500 Avionics systems in use by the RSAF at all levels of testing – flight line, workshop, and depot.

9500A TEST SYSTEM AT HILL AIR FORCE BASE Catalog No. 488-11

Time: 11 minutes

Sales Support

Shows the 9500 ATS at Hill AFB testing modules of various aircraft flight control systems.

9550D THE CALIBRATION SYSTEM FOR THE 70'S Catalog No. 909

Time: 23 minutes Date: 1/73

Sales Support

Analysis of the instrument calibration business, describes the innovative techniques of the 9550D and demonstrates the cost effectiveness of the system.

9540 AUTOMATIC TRANSCEIVER TEST SYSTEM Catalog No. 962

Time: 15 minutes Date: 1/73

Sales Support

Describes and demonstrates the features and advantages of testing transceivers with the 9540 system.

USERS SPEAK OUT ON RF AND MICROWAVE AUTOMATIC TEST SYSTEMS Catalog No. 90315

Time: 28 minutes Date: 1/75

Sales Support

Users/owners of HP RF/microwave systems describe their own successful experiences with automatic testing.

OPNODE TRAINING Catalog No. 90520

Time: 5½ hours Date: 7/75

Customer Training

A set of 6 tapes covering the OPNODE Computer-aided design package.

BOISE DIVISION NEWS

Division News

Alic Rakhmanoff Joins Boise Sales Team

By: John Whitesell/Boise

Alic Rakhmanoff is transferring from HP-Grenoble to HP-Boise for about a year and a half, to help support the sales of PL 69 (Grenoble) products in the U.S. and Canada.

Alic is replacing Bernard Guidon, who has done a tremendous job in the year and a half he has been here in Boise, and is now returning to Grenoble.

Alic has an electrical engineering background. He joined HP-Grenoble a year ago, where he worked in Sales Development supporting RTE sales in Europe.

It will probably be most convenient for U.S. and Canadian salespeople to continue to communicate with your regional factory contact for questions regarding PL 69 as well as Boise's other product lines, but Alic will be here to back them up and will have over-all responsibility for promoting PL 69 sales in the U.S. and Canada.

Please join me in wishing Alic and Bernard the best of success in their new assignments.



Bernard Guidon, Alic Rakhmanoff and Friend.



Just a Reminder!

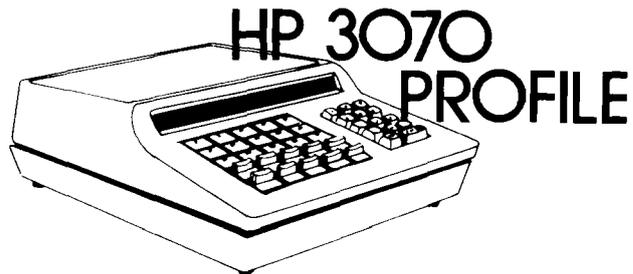
By: Larry Andrews/Boise

Don't forget the new low prices on 2762A's and B's! These prices should make it much easier to sell multiple hard copy terminals on systems.

Another Reminder

By: Larry Andrews/Boise

Boise is in the mountain time zone. When you think of Boise think mountains!



3070A Profile Section

By: Bernard Guidon/Boise

SUMMARY: In the last issue, we discussed why the 3070A is especially attractive for manufacturing operations and finally stated that the two major requirements of such data collection are "friendliness" and total low cost of using the terminal "on-site."

In this issue we would like to talk about the key people involved, and what key benefits we have to offer to each of them. The 3070A's and an HP System for operation management will usually involve numerous managers. This gives you more possibilities to start with depending upon your relationship with the manufacturer.

General Manager:

The primary interest of the general manager is to be provided with accurate reports of his operations. Such reports

must keep him informed not only of the current situation, but also of the general trend so that he can predict his needs for the future. Therefore a generalized data collection system is a must. Because the 3070A is a general-purpose desk top terminal, its applications are not limited to shop floor data collection, but can be expanded to almost any area of his company (Finance, Order Processing, Time and Attendance, Purchasing, etc.) Talk to him about collecting timely and accurate data from all his functional areas: he's going to like it!

Manufacturing Managers:

The manufacturing manager will be interested in decreasing his inventory investment and improving knowledge of the status and flow of production. Daily reports of the production flow, location of the items and tight control will help him manage and improve the cost of production. The friendliness of the 3070A together with the ease of relocating the terminals on the ever-changing production lines will be extremely valuable.

EDP Managers:

The EDP managers will greatly appreciate the multidrop concept of the 3070A in which most of the terminal I/O processing is handled by the controller board. Therefore less software investment and hassle are required with the 3070A. The ease of implementation and expandability will also be of great value. They will love to investigate and develop their applications with only a few terminals and then simply expand it to their full scale operation.

Q.A. and O.P.

The Q.A. and O.P. managers will love to get rid of all the paper work usually required in traditional systems. Accurate and timely reports can be generated from the on-line system offered by a 3070A's implementation. The ease of usage of the terminal and on-line validation of data will be selling points.

Finance Managers:

Maybe even more than in any other functional area, the accuracy of data is critical in a finance department. Again on-line validation will be especially valuable. The ease of operating the terminal and its packaging will prove attractive.

All the above managers in a manufacturing operation have a need for a data entry terminal, and we have the best on the market today. So don't wait — sell the 3070 now!

3070A's Help Sell 9600 Systems

By: Bernard Guidon/Boise

Ed Wilson in Orlando has sold 2 additional 9600 systems because of the broad line of Hewlett-Packard terminals. In addition to the traditional CRT needs, a U.S. firm under government contract had a requirement for a numeric input device such as the 3070A. The key selling points of the 3070's were the prompting lights and the special function keys. However, when *Ed* explained the high noise immunity

built into the terminal, it was no doubt that the 3070A was the ideal device they were looking for.

The 3070A is available to help you sell more systems. It gives HP's system an edge on the competition!

Product News

Optical Mark Readers Ease Semi-Conductor Test

By: Bernard Guidon/Boise

A new OEM purchase agreement for Optical Mark Readers has been signed by one of *Gary Leight's* (Neely Santa Clara) accounts for several 7261's in a semi-conductor test application.

A micro-program based system is used to automatically test semi-conductors. The choice of the test and its program is simply made with a pencil and easy-to-use cards! The 2 or 3 cards containing the tests are then loaded into the 7261A to be processed by the controller system.

The flexibility of card usage makes optical forms ideal for this application.

If you have similar semi-conductor testing applications in your territory, let me know and I will forward detailed information.

Good Selling!

Sales Engineer's Corner

Using a Stand Alone 7260A on the 3000 Series II

By: Bernard Guidon/Boise

Applications where stand alone 7260A's (with no terminals) are required on 3000 Series II are now possible. The 7260A can be used to log-on and run programs without a costly associated terminal. To do so, simply connect the 7260A to the 3000 II MUX and press the Ready pushbutton on the 7260A front panel. This causes the 7260A to transmit the carriage return character necessary for the auto speed detect of the 3000 II. Then, load a card with the HELLO command and push the Single Pick pushbutton of the 7260A. Wait a few seconds to allow the 3000 to log-on, and press the Single Pick pushbutton again to transmit the contents of the second card with the RUN PROGRAM NAME command.

A network of stand alone 7260A's: a plus to sell more 3000 II's!

Your Personal Copy of the 3070 RTE Driver Manual is in the Mail

By: Bernard Guidoni/Boise

Whenever configuring an RTE system with DVA 47 (RTE driver for 3070A's) special care should be taken to assure that there is always one EQT per 3070A, plus one EQT per controller board. For instance, when configuring a system with 1 controller board and 3 3070's, 4 EQT's should be allocated. The RTE driver manual (92900-90005) describes in detail the configuration considerations. Please refer to it whenever you are configuring a new RTE. To provide you with the exceptional service that you deserve, a personal copy of the 3070 RTE driver manual has been distributed to each SE in U.S. and Canada.

We are doing our best to help you, because we care!

Order Processing

Returning Equipment to Boise

By: Sallie Bertram/Boise

I want to thank you all for the fine cooperation we have had on getting factory approval prior to returning equipment. Over the last several months we have not had a single unauthorized return. Unfortunately, someone has broken the spell. Equipment has again arrived at the backdoor unannounced.

Authorization to return equipment *must* have factory approval *prior* to the return. I ask your cooperation. Please call me with your requests to return equipment (other than warranty). Don't be bashful — the worst I can do is say: "Yes, but. . ."

Rescheduling Orders

By: Sallie Bertram/Boise

I also ask your cooperation in supporting the factory on rescheduling orders. A customer is subject to charges whenever any order is rescheduled (or cancelled) within 60 days of its scheduled delivery. We've been experiencing a lot of problems with this lately.

It's not uncommon to receive a reschedule the very week equipment is scheduled to ship. Due to the nature of our equipment it's not often possible to shift orders around.

I would greatly appreciate your support in minimizing order rescheduling. It's possible that if we were to become more uniformly assertive in assessing the charges, we would see less rescheduling (dollars saved by HP), which is what we would all like.

Boise Used Equipment Available

By: Sallie Bertram/Boise

The following used equipment is available from Boise, at discounts ranging up to 40%.

PL 69	OPTION(S)	S/N
7261 (or 12986A)	002/888	1316A-00319
7261 (or 12986A)	003/888	1509F-00169
7260A	003/019/888	1316F-00116
7260A	002/003/016/888	1316F-00281
PL 56		
13182A/H15		
13196A	001/888	
7970E	151/007/888	1606A-02048
7970E	151/007/888	1606A-02422
7970E	151/007/888	1443A-01610
7970E	165/020/888	1621A-02810
PL 57		
2607A/STD		1627A-00882
2607A/STD		1627A-00569
2607A/015		1627A-01269
2610A/STD		1220A-00303
2610A/STD		1220A-00154
2610A/STD		1220A-00421
2752A/STD		1302A-06160
2752A/STD		1302A-04462
2752A/STD		1302A-05777
2754B/STD		0825A-02132
2754B/STD		0825A-02263
2762A/STD		1310A-00658
2762A/STD		1310A-00833
2762A/018		1545A-01120
2762A/018		1545A-01091
2762A/001		1310A-00393
12845B/888		

All quotes should be "subject to prior sale". To find out what is currently available, and at what discount, please contact your friendly Boise Order Processing Coordinator.

DATA SYSTEMS NEWS

Product News

HP 1000 and DISComputer Prices Have Been Reduced!

By: Van Diehl/DSD

Effective March 1 we have lowered the prices of the HP 1000 systems and DISComputers to the following:

I. HP 1000	
HP 2170A	\$31,500 (was \$33,500)
HP 2171A	\$36,500 (was \$37,500)
HP 2172A	\$36,500 (was \$37,500)
II. DISComputers	
HP 2124B	\$15,500 (was \$17,250)
-016	\$ 850 (was \$600)
HP 2125A	\$20,000 (was \$22,250)
-016	\$ 850 (was \$600)
HP 2126A	\$22,400 (was \$24,400)

All these prices are U.S. list.

HP 1000 — 9603R/9611R Link: 91226B Option 002

By: Van Diehl/DSD

The Option 002 of 91226B Remote Communication Interface is missing from the Corporate Price List. But, please, add it to your orders of the interface when you order it with the HP 1000. The option provides diagnostics in minicartridges instead of paper tape.

New Product Compatibility Guide

By: Bob Frankenberg/DSD

To help you get quick answers to the "Does _____ work with _____?, Does _____ have a _____ driver?, Which terminal can I use?" questions, you now have the Data Systems Division Product Compatibility Guide (5953-0801). In this handy 9-page booklet all 21MX computers, I/O cards, subsystems, and current operating systems are listed, as well as their compatibility with each other. Special sections show terminal and system console choices for the HP 1000 as well as earlier systems.

Two copies of the guide are in the mail to each of you. If you need additional copies, they can be sent from DSD's Marketing Communications section. For obvious reasons, we ask that you keep these guides out of customers' and competitors' hands.

We hope that this guide will decrease the amount of time you have to wait for answers to these important questions and give you just that much more time to sell.

Do Not Forget Option 020 on HP 1000 Optional Software

By: Van Diehl/DSD

We are receiving many HP 1000 orders with optional software without the required Option 020. Option 020 is the option in all software packages that specify minicartridges instead of paper tape. This is causing a lot of problems in order processing with consequent slippage in delivery. We are also incurring a lot of unnecessary expenses that can be easily avoided. Just remember to always order Option 020 when ordering optional software. Let's keep our customers happier and our profit checks higher!!!

The RTE II/III Grandfather Disc Revisited . .

By: Van Diehl/DSD

The new RTE II/III products 92001B and 92060B represent significant advances from the previous RTE II/III product. Besides significant new features, such as on-line generation, there is a significant break-through in the way DSD distributes software. We are talking here about the grandfather disc. They contain in file manager files, all the modules of the RTE operating system, drivers, languages — everything. These files are listed in the appropriate Software Numbering Catalog. This disc was called the *grandfather* because it is supposed to be the ultimate back-up facility for each customer. These discs have been copied and verified in the factory from a master software cartridge and have been assigned a unique serial number. If the user is a subscriber of the SSS he will receive automatically, updates in minicartridges or paper tape. An RTE utility "Disc Update" is provided to replace the appropriate module.

This is another step to make RTE friendlier, not only to use but also to generate and *maintain*. A very definite competitive advantage over DEC, DG, etc.

For present users of older versions of RTE II/III we provided an easy and inexpensive path to upgrade to the present 92001B/92060B.

This is the option 001 of these products. It only costs \$500 and provides a *grandfather* cartridge (7900 or 7905).

RDTS to RJE/1000 Upgrade Kits

By: Bill Stevens/DSD

RDTS users who are not on the software subscription service and who want to upgrade to RJE/1000 must order kit number 91780-14001 soon! This kit can be ordered via HEART override for the next three months only. It will not be available after May 31, 1977. Therefore, encourage your customer to upgrade now!



Measurement and Control Software: What's Available

By: Dave Hendrix/DSD and Dave Hannebrink/DSD

Real Time Executive (RTE) was first developed for measurement and control (M&C). Back in the days (~10 years ago) when HP decided we needed a controller for our instruments, we developed the 2116A. We also needed an operating system that would handle the number of instruments we were making "controller operated"; i.e., programmable. We were going to build systems!!

We didn't want to build "turn-key" systems but we did want to provide the tools that a customer could use efficiently as a solution to his problem. Process automation was the direction of the future; programmable instruments, a general purpose controller and a software operating system to marry the two was our role in this direction. This software operating system was called "RTE" and has evolved to what it is today, one of the finest minicomputer operating system in the industry!

From the development of our first RTE (with drivers only) to our current M&C software enhancements, we've given our customers a fine assortment of tools to solve the majority of their M&C problems. This article will consolidate the descriptions of our M&C based software thus providing you with a quick reference overview of what's available today.

RTE-II/III and RTE/M

The HP 1000 is run under RTE-II, RTE-III or RTE-M software. (to be announced in March). Programs can be scheduled in four ways; each applicable to typical M&C situation:

1. Operator request — i.e., check on process status,
2. Other program requests — i.e., check data against limits,
3. Time of day — i.e., data logging,
4. External event — i.e., alarm condition,

also the operator has, at his (her) convenience, access to instrument drivers, a M&C utilities library and ISA FORTRAN extensions, all designed for programming efficiency.

RTE is *the* valuable asset for HP 1000 M&C application.

Drivers

A driver is a software controller interface between the RTE operating system and the hardware interface card. It's designed to handle all the control and data handling necessary between the controller and the instrument. The following chart shows exactly what drivers are available for each instrument described in previous articles:

Instrument	Driver	Approx. Memory Required (Words)	Software Part Number	Manual Part Number	Op System	Comments
2313B A/D Subsys	DVR62	544 ₁₀	29009-60001	02313-93002 29009-93001	RTE-II	(1) Requires R2313 for efficient control of MUX's. (2) 2313B-S50 provides RTE-II Dr
2313B A/D Subsys	DVR62D	665 ₁₀	02313-16001	02313-93002 29009-93001	RTE-III	(1) Required for RTE-III mapped system. (2) 2313B-S51 provides RTE-III Dr
12751A 12760A MUX's 12761A	R2313 Utility + 2313B Dr	386 ₁₀	29011-60001	02313-93002 29009-93001	RTE-II/III	Supports setting and reading the gain of LLMPX's, supports single channel sequential or random scan measurements.
12755A Prog. Pacer	P2313 Utility + 2313B Dr	64 ₁₀	29011-60002	02313-93002 29009-93001	RTE-II/III	Supports pace rate and starting and stopping of pacer.
12757A Dual DAC	D2313 Utility + 2313B Dr	181 ₁₀	29011-60004	02313-93002 29009-93001	RTE-II/III	Supports one or more DAC's.
91000A A/D Card	DVR62 or DVR620 + R2313	(544 or 665) plus 386	29009-60001 or 02313-16001 plus 29011-60001	91000-93003	RTE-II/III	(1) 91000A-S50 provides associated RTE S.W. for RTE-II op. sys. (2) Can run concurrently w/ 2313B subsystem off one driver
91063A + Assoc. Plug-in Cards	DVR72	890 ₁₀	09611-16005	29100-93003	RTE-II/III	Runs efficiently w/ 92413A ISA FORTRAN Extension Package.
12551B Relay Output Reg. 12554A 16 Bit Duplex Reg. Card 12554-001	NO dedicated driver (see comments)	— — —	— — —	12551-9002 12554-90021 12554-90022	RTE-II/III RTE-II/III RTE-II/III	Same as 12566B 12566B-002
12566B 12566B-002 Microcircuit I/F	NO dedicated driver (see comments)	— —	— —	12566-90015	RTE-II/III RTE-II/III	DVR62 can be used but queue buffer & EXEC calls must be handled by user. This is quite a large driver to handle control but it is an offering.
12930A 12930A-001 12930A-002 Universal I/F	NO dedicated driver (see comments)	— — —	— — —	12930-90001	RTE-II/III RTE-II/III RTE-II/III	DVR62 can be used by queue buffer and EXEC calls must be handled by user. Only data mode can be handled. Upper select code for control cannot be handled due to driver bit handling limitation.
12555B D/A Converter	None	—	—	12555-90063	—	Integration left to customer
12556B 40 Bit Output Register	DVR54	249 ₁₀	25117-60551	25117-93001	RTE-II/III	None
12560B DSI Input I/F	DVR40	68 ₁₀	20295-60001	29100-93001	RTE-II/III	None

Programming Languages, Enhancements, and Utilities

The HP 1000 supports four application programming languages: FORTRAN, BASIC/1000, HP Assembly language and ALGOL (execution only on Models 20/21). Although "hard-core computer jocks" are likely to write M&C application code in Assembler, the vast majority of engineers and scientists know, love, and program in FORTRAN and/or BASIC. So, right off, we can offer the language support typical M&C customers want and need.

In addition, we've made some enhancements to these languages to further tempt the M&C market. When BASIC/1000 (92101A) is ordered, we include 2313B and 6940B device subroutines so the user may program these subsystems using simple BASIC calls. And our Multi-User capability means that applications programs can be running at the same time that new programs are being developed.

The Instrument Society of America (ISA) has standardized a set of FORTRAN subroutines and functions enabling FORTRAN users to program typical analog and digital I/O devices. HP actually provides a super-set of this standard, i.e., we implement the full ISA recommendation for programming most of our 2313B and 6940B I/O functions and include additional software for special applications (stepper motor control, frequency counting, etc.) supported by our front end subsystems. The ISA FORTRAN extension package is included in the 92066A RTE Measurement and Control Software Package which ships with every HP 1000 order. Consult the HP 1000 technical data book (5953-0800, 10/76) for further details concerning these FORTRAN enhancements.*

HP's broad M&C experience has shown us the recurring need for certain data and signal processing software utilities. To eliminate user effort in writing his own version of these widely needed routines, we offer the sensor-based DAS Utility Library (92400A). The various capabilities of the package are given below.

DAS Utility Library Package	Capability
Thermocouple Linearization Package	Converts thermocouple voltage to °F or °C, with correction for thermocouple non-linearity for Type J, K, and T thermocouples in -250° to 1600°F (-150°C to 900°C) range, providing ±0.5°F/±0.3°C accuracy.
Humidity Package	Calculates vapor pressure from dew point temperature, relative humidity, or wet and dry bulb temperatures, and calculates relative humidity from dew point temperature or wet and dry bulb temperature, with 1% accuracy.
Statistical Analysis Package	Calculates mean, standard deviation, and histogram from fixed or running data.
Code Conversion Package	Converts ASCII to EBCDIC or BCD and vice versa.
Curve Fitting Package	Performs least squares error curve fit of user's data to choice of six different standard functions.
Interpolation Package	Performs first-and second-order interpolation of uniformly-spaced or randomly-spaced data.
Integration Package	Performs numerical integration of first-and second-order fixed data or running data.

*Note that the ISA FORTRAN subroutine library table generator does not run on Model 20/21 and thus user configurations are not covered by our warranty.

Further details can be found in either the HP 1000 technical data book or the M&C Peripheral data book (5952-8506, 9/76). By the way, the 92400A package is included with both the 9603R and 9611R subsystems. This package is also callable from ALGOL and HP Assembler. A word of caution though — the package is not callable from BASIC/1000D.

HP-IB applications software can be written using FORTRAN, or BASIC. The HP-IB Pocket Guide illustrates just how easy bus programming can be. DVR37, of course, is included with the HP 1000 standard RTE drivers' package, 92062A, and is no longer ordered as a separate option for the 59310B card.

Microprogrammable I/O Alternatives

We use a DCPC channel (maximum rates: 1M word/sec in; 890K words/sec, out) when interfacing HP supplied front end hardware with the HP 1000. These rates will accommodate most higher speed customer-furnished data acquisition hardware. Also our DCPC channels are program assignable to any I/O device thus permitting user flexibility for direct memory access.

There are instances though when higher transfer rates will be desired. Although we've not quoted any specials to achieve these higher rates, the sophisticated user should be aware that he has access to two microprogrammable means

of high speed data transfer. Using the E-Series Microprogrammable Processor Port (MPP) permits direct transfer of large data blocks onto the main data bus (S bus) at rates up to 1.5M words/sec. Bursts of a maximum of 16 words can be transferred at 5.7M words/sec.

Microprogrammable Block I/O (MBIO) is another method of realizing the 1.5M words/sec transfer rate. Unlike MPP it utilizes the standard I/O backplane of the E-Series. However

I/O card design must be done by the customer, either by modifying existing HP cards or by developing custom hardware.

Of course these rates are subject to processor utilization and care should be taken when discussing customer applications. The methods, though, may provide a high speed interfacing alternative for the knowledgeable user.

Sales Aids

Used and New Equipment at Super Savings

By: Judy Coleman/DSD

The following used equipment is available at great savings and all units carry a full 90-day warranty.

QTY	PRODUCT	DESCRIPTION	PRICE
3	2100A-008-888	Computer 8K Memory	\$ 8,000.00
3	2100A-016-888	Computer 16K Memory	10,000.00
1	2100A-024-888	Computer 24K Memory	12,000.00
1	2100A-032-888	Computer 32K Memory	16,000.00
2	12960A-888	Cartridge Disc Subsys	8,800.00
2	6940A-888	Multiprogrammer	650.00
1	6941B-888	Multiprogrammer Extender	500.00
100	12998A-888	8K Memory Module	350.00
2	2762A-018-888	Console Printer W/Pedestal	2,000.00
1	2762A-017-888	Console Printer W/Pin Feed	2,000.00
5	2762B-002-888	Console Printer W/Vertical Forms	2,825.00

The following new equipment is available at great savings and all units carry a 90-day warranty.

18	14536A	3' Chaining Cable	119.00
3	14539A	12' Card to PWR Sup.Cable	119.00
10	69380A	Breadboard Output Plug-In	87.00
9	69510A	Resistance Plug-In Card	280.00
8	69512A	Resistance Plug-In Card	280.00

Please contact *Judy Coleman* (408) 257-7000 EXT 3367 for availability and transmitting instructions. Units are available on a first-come, first-served basis.

Instrument Orders

By: Rosel Witt/DSD

The April 1, 1976 issue had two articles concerning Order Processing procedures and Order Priority at DSD. In this issue I would like to reprint one of those articles, written by *Ken Kormanak*, to focus your attention once more on DSD's ways of handling your orders. We still emphasize the use of ASAP orders whenever possible to insure that you get shipments fast, often in less time than published availability, and to maximize shipping potentials for us at DSD.

I thought it might also help to highlight some other facts about DSD Order Processing procedures to make the interface between the field and DSD as easy as possible and to avoid problems. The following refers to Instrument orders.

1. The COSMIC System recognizes dates in weekly time periods only. Specific days are not tracked.
2. For all domestic instrument orders, we allow one week ship lead time. This means we start processing or issuing your order for shipment one week before the required date or before acknowledged ship date to allow for shipping and transit. This week is referred to as Issue Week.

Example: Required Week = Week 4 (January, '77)
Issue Week = Week 3 (January, '77)

We may issue an order as early as Monday the week prior to Required Date. Depending on the destination, the order may arrive a few days early.

3. If DSD wants to ship an order earlier than one week before required date, Order Processing will contact the field for approval to do so.
4. If the customer specifies an absolute date before which he does not want the shipment to leave the plant, this must be noted in special instructions on the HEART order and the required date should be the following week. Order Processing will make sure that the order is *not* issued for shipment until the specified date.

EXAMPLE:

Special Instructions:



DO NOT SHIP BEFORE JANUARY 12, 1977

(Wednesday of Week 2)

Required Week = Week 3

Issue Week = Week 2

Order issued for shipment not before January 12, of week 2.

5. There is a good chance that ASAP orders have a faster delivery than the quoted availability. If the required date is ASAP, we may ship the order as early as within one week of receipt of order, provided the equipment is available.
6. If a customer would like to receive his shipment earlier than the published availability indicates, but does not want to risk receiving within a week of ordering, a required date must be specified.

Perhaps you have other questions concerning DSD Order Processing and Shipment practices. Please feel free to contact us by getting in touch with *Sales Development* or *Hal Eubanks*, O.P. manager. We are eager to solve your problems and work towards a good relationship between the field and DSD to achieve maximum customer satisfaction — still our prime objective.

Order Priority at DSD — ASAP is Best

By: Ken Kormanak/DSD

DSD has an automated system for processing customers' order requirements. This system is named COSMIC (Customer Order Servicing for Management Information and Control). The purpose of COSMIC is to match customers' order requirements for instruments to the factory's scheduled instrument production. This process is achieved using a HP 3000 which contains all orders for DSD and all instruments master scheduled for production.

Two basic criteria are used to fill a customer's order:

1. Scheduled Instruments for production are matched to orders whose stock dates are as close as possible to the required ship date on the order.

2. All orders in DSD's backlog on COSMIC are ranked in a priority sequence to fulfill legal and marketing requirements.

The *first* criterion allows DSD to maximize the shipping potential of its inventory. Allocating (or Booking) instruments whose scheduled stock dates are as close to the order's required date frees up scheduled production for orders with early required dates such as ASAP orders.

The *second* criteria ranks all orders according to their priority to insure a legal and "fair" allocation of scheduled production to customer's orders. This prioritization logic was implemented on COSMIC December 1, 1975 and differs from the old COPS systems logic used at DSD prior to COSMIC.

Essentially, this logic insures the "first pick" of available production to Government rated orders (DX and DO). All other non-rated orders are then ranked by date ordered. Both rated and non-rated orders alike always keep their place in line whenever new orders enter the system. Thus, new orders always fall behind older orders within their priority class.

The use of an *ASAP* required date is *strongly recommended* under this new booking logic. If the customer will accept delivery "as soon as possible," COSMIC will always try to allocate an instrument to an ASAP order to allow the earliest possible ship date.

The only possibility of an order slipping its delivery date with this new prioritization logic is a slip in scheduled production or the receipt of rated orders. Both conditions will only affect ship dates if required instruments are in a short stock position.

DSD is committed to on-time production by meeting each lines' completion schedule. This will produce stable ship dates using the COSMIC system's booking logic. Rated orders generally comprise a small percentage of the backlog which could affect the ship date of an order.

In summary,

1. DSD has provided a method for stabilizing ship dates based on our ability to meet completion schedules.
2. DSD will immediately acknowledge any changes in the latest ship date of your order, should they occur.
3. We strongly recommend placing an ASAP required date on your order, whenever possible. ASAPs have equal priority with DNSB order dates and will always move forward if we have cancellations or additional production to ship on the earliest possible date.
4. DSD is committed to customer satisfaction as our prime objective for this year. Give us those orders, so we can make the system work for you!

These soft keys can handle data files of 1024 bytes each and can be expanded by adding more "H_cE_cL" in f4. Any length transfer is possible from the screen. Unit separators are transmitted on screen transfers but not on file transfers. Record separators are still present and immediately precede the forced carriage return character.

The commands from the CPU that are necessary are listed below:

- READ next file from left tape: E_c&c177417A361dd10D
- READ next file from right tape: E_c&c177417a362cd10D
- Prepare to read unprotected data from formatted form on screen: E_c&c1BE_cb then operator presses f5, f6, f7, or f8 to perform ENTER.
- To complete operation and unlock keyboard: E_cb

Data Communications Self Test Revisited

By: Eric Grandjean/DTD

In addition to the description given in the February 1st issue of the Newsletter (Vol. 2, No. 6). I would like to point out that the *standard* (tapeless) 2645A-2641A, 2645S and soon the 2645R configurations do not have the I/O device support firmware ROM. This means that the green key is not active in this case.

Let it not stop you from enjoying communication self tests! You can also initiate them by pressing the Escape key followed by lower case X (caps lock key up!). Please make a note in your 2645A Reference Manual.



"You say you're in a phone booth on Madison Avenue, it's 20° below and snowing, the airports are closed, and you need a terminal by tomorrow?"

MUSH!!

HP GRENOBLE NEWS

Product News

What Works With What

By: Georges Quin/HPG

The HP 7260A the terminal orientated version of the OMR can be used with most of the current HP systems. The table below tells you if the OMR works with or without an associated terminal and with or without a modem. In case of doubt call Sales Development before quoting to your customer and avoid any nasty surprises.

System	System Interface	HP 7260A Alone			HP 7260A With a Terminal		
		Hardwire	Modems		Hardwire	Modems	
			Full Duplex	Half Duplex		Full Duplex	Half Duplex
2000 Computer System	12920B	No	No	No	Yes	Yes	Yes (2)
3000 Series II	MUX	No	No	No	Yes	Yes	No
DOS III	12966A 12920B	Yes	Yes	Yes	Yes	Yes	Yes (2)

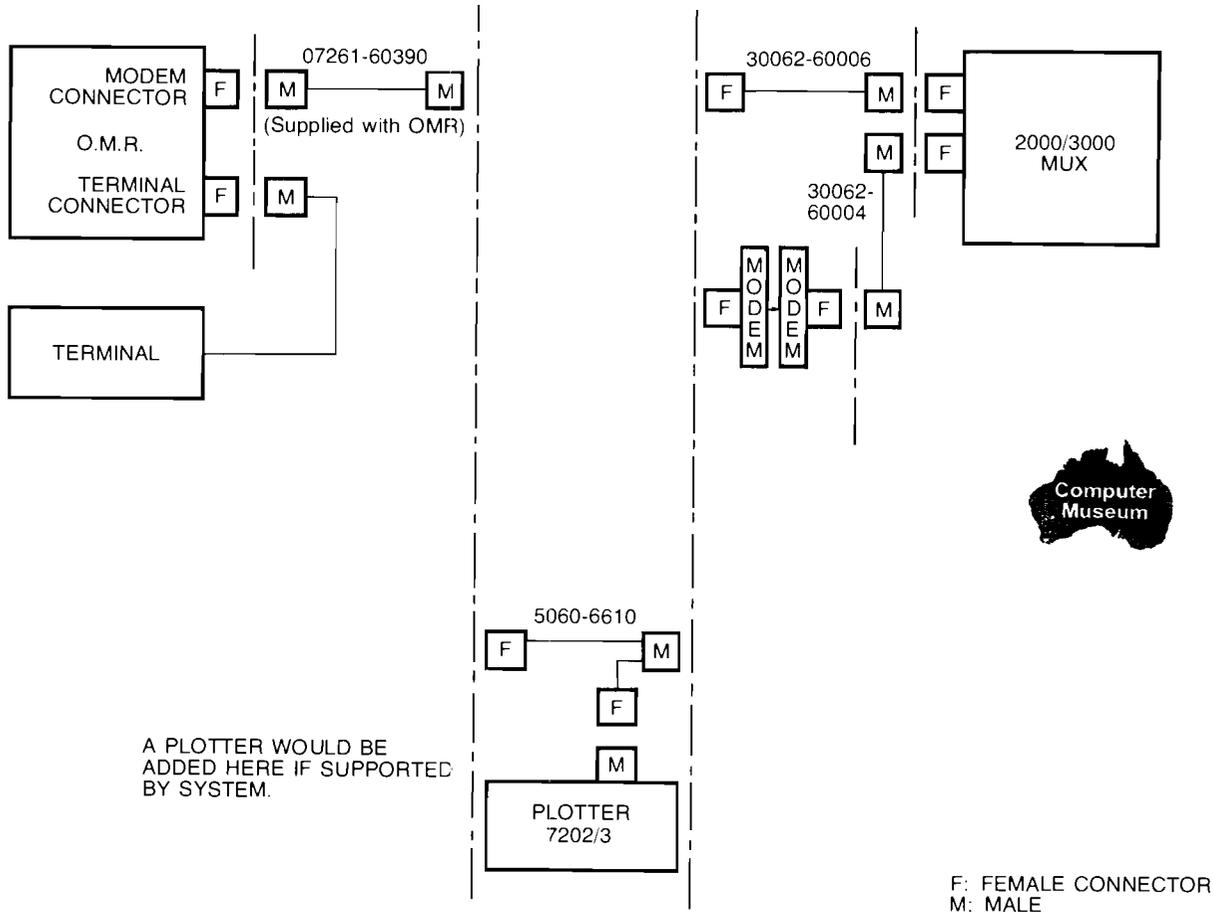
Notes (1) Terminal can be one of the 264X family, 2762A, 2762B, 2600A, or 2615A

(2) 2762A, 2762B, 2600A and 2615A are not supported in half duplex

When ordering cables for use with your terminal devices, remember the following rules:

1. The terminal is always responsible for controlling half duplex modems and cables used must include appropriate control lines and the terminal should be equipped with appropriate options.
2. The cable used to connect the computer interface to a modem must, at some time, swap the connection of the transmit and receive lines. (Pins 2 and 3).

Perhaps this sketch will help:



International News

B.I.A.S. International Show in Milan (Italy)

By: Georges Retornaz/HPG

This show, which took place last November, was a great success, and HP Italy welcomed many interested customers at the booth.

The Computer Systems group exhibited:

- a 3000 series II with a line printer and three 2640 terminals; as well as an HP 1000 with two line printers, two CRT terminals and two 3070 data entry terminals.

ALCOR, an OEM customer, presented a software package for inventory control, accounting and invoicing, written in FORTRAN and Assembler, using IMAGE on the HP 1000. The NPT demo programs were run on one of the 3070A's, while the second one was used for real-time invoicing, simulating a P.O.S. terminal with print-out on a line printer.

HP-IB capabilities were also demonstrated and special attention given to the 2645A.

The show resulted in more than 200 leads, with over half of them new prospects.

A pat on the back for the ITALIAN team — We are all set to receive those orders!



GENERAL SYSTEMS NEWS

Product News

ISS Disc Drive Sale

By: Pat McGrath/GSD

General Systems Division has placed a limited supply of 47M byte ISS Disc Drives on sale for \$11,500 each. This is a discount of \$6,000 from the regular price of \$17,500.

This is a significant bargain to those existing 3000 customers who have ISS-based Systems without a selector channel or a 79XX controller and would appreciate extremely fast delivery for add-on disc storage.

ISS DISC DRIVE

ISS w/controller \$21,500
Delete controller (10,000) \$11,500

7920 DISC DRIVE

7920 w o controller \$14,000
Selector channel 3,600
79XX controller 4,500

\$22,100

This sale will exhaust our inventory so all customers desiring to take advantage of this sale should get their orders in now. Highest priority will be given to those customers with the earliest shipment date (i.e., first come, first served). Please make sure your customers hear about this offer, from you, while the supply lasts.

GOOD SELLING!

Competition

3000 Features Summary

By: Rich Edwards/GSD

The following checklist was refined from a year's experience of selling in the System/3 market by the Rolling Meadows, near Skokie [Chicago], sales team. The list was used primarily in the System 3 market, but as you've seen, the Series II can hold its own against any system in its price class. Give this list to your customer to fill out. It will help in the competitive analysis.

SUMMARY OF MAJOR FEATURES

ITEM	HP 3000/II	SYS/3	REMARKS
ON-LINE PROGRAM DEVELOPMENT	Yes	_____	Development, execution and access of all programs, files, and data bases is performed on-line, which is the major contribution of the HP 3000 system.
NUMBER OF TERMINALS	63	_____	Maximum number is dependent upon job mix.
SPECIAL TERMINAL SOFTWARE NEEDED	No	_____	The operating system software includes the terminal handling capabilities, providing both batch and on-line access. No special coding is necessary to run a batch program from any terminal.
BATCH PROCESSING	Yes	_____	Benchmarks have shown the HP 3000 to be: — 1.5 — 3 times faster executing. — 2 — 4 times faster compiling. Times are dependent upon type and number of disc, as well as memory size.

ACCOUNTING	Yes	_____	A complete accounting system is standard on the HP 3000, providing accurate information on all users (such as number of disc sectors, CPU seconds, connect minutes) which can be used for billing.
SECURITY	Yes	_____	Provides four basic levels of security (account, groups, user, file lockwords) (an additional 63 levels of security using the data base management system, IMAGE) plus optional graded access restrictions.
INTEGRITY	Yes	_____	User specified multi-user access (SHARE, Exclusive Allow Read, Exclusive)
MULTIPROGRAMMING	Yes	_____	True multiprogramming is offered and is not limited to a specific number of partitions.
VIRTUAL MEMORY	Yes	_____	Provides execution of programs much larger than the actual memory in a multiprogramming environment.
DATA BASE MANAGEMENT	Yes	_____	The HP 3000 DBM subsystem, IMAGE, provides CODASYL style capabilities (e.g., calculated and chained access), in addition to standard sequential and direct file access. On line inquiry without application programs (QUERY/3000)
SPOOLING	Yes	_____	Input and output spooling is included with the HP 3000 at no additional cost.
EDITOR	Yes	_____	On-line creation and full editing of source files for all languages. The Editor is also useful for text editing.
DEVICE INDEPENDENCE	Yes	_____	Recompiles are not necessary if peripherals are changed or added.
MAGNETIC TAPE	Yes	_____	Is standard on all models of the HP 3000 enabling inexpensive backup and file/program transfer.
PROGRAM OR FILE RESTRICTIONS ON BATCH JOBS	No	_____	Programs and files are accessible from batch and interactive terminals.
MULTI-KEY INDEXED SEQUENTIAL FILES (KSAM)	Yes	_____	Each KSAM file can be accessed by up to 16 separate suited keys.

Division News

Management Switch at GSD

By: Bill Krause/GSD

During the last eighteen months, the General Systems Division has grown and changed substantially. Three of the key individuals that made our success possible were *Ray Johnson*/Product Assurance Manager, *Carolyn Morris*/Customer Engineering Manager, and *Don Barkley*/Sales Manager. We now have the opportunity to broaden the background of each and to strengthen our organization by rotating their assignments.

1. *Ray Johnson* has pulled together a good team that has really helped us improve the quality of our products. A few of the contributions have been software release procedures, test site policies, product safety awareness, systems test requirements, understandable quality data and a successful internal maintenance program. *Ray* joined HP in 1964 and transferred into GSD from AMD. *Ray* will be moving to Customer Engineering Support to manage our program in support of the Customer Engineering Division.

Ray will be working for *Bill Krause* as part of the Marketing team.

2. *Carolyn Morris* has been responsible for our Customer Engineering Support activities. The Customer Engineering team has played a major role in increasing customer satisfaction by providing the right tools, training and on-line support for our field customer engineers. *Carolyn's* team played a major role in the reliability program and the Series II introduction. *Carolyn* joined HP in 1973 and transferred into GSD from DSD. *Carolyn* will be moving to *Sales Development* to manage our sales program in support of our field sales representatives around the world. *Carolyn* will continue to work for *Bill Krause* as part of the Marketing team.
3. *Don Barkley* has been responsible for our Sales Development program during the time that the field sales team aggressively began selling 3000's and our sales rate grew by a factor of three. The Sales Development team has been instrumental in training and supporting

our salesmen and introducing the Series II. *Don* joined HP in 1960 and transferred into GSD from the Eastern Sales Region. *Don* will be moving to the position of division *Product Assurance Manager* working for *Ed McCracken*. This will give *Don* an opportunity to get closer to our Manufacturing and Development programs.

It's great to have the opportunity and the people that can rotate into new jobs and challenges. I'm sure you'll join us in wishing these members of the GSD team success in their new assignments.

HP 3000 Series II: Results in a Service Company

By: *Rich Edwards*:GSD

Imagine a company where literally everyone has an opportunity to use the computer system. And the computer system is paying for itself from the revenues received from other business firms for computer time made available to them through terminals over phone lines. That's a good description of a media company that owns a cable T.V. system, a number of radio stations, an office furnishings distributor and a data processing division.

Top management was tired of having large computer print-outs distributed to them on inventory and customer account status. Frequently the reports were thumbed through manually for perhaps just one piece of information. When the decision was made to implement an on-line computer data base management system the company returned their IBM System/3 and purchased an HP 3000. Today retrieval from the data bases is easy with an on-line terminal and QUERY; data is literally at a manager's fingertips.

With over 17,000 subscriber's accounts in the data base, the company has had no problem meeting its design objective: "to have all accounts available at the touch of a button, and the entire history on that account." An example of a benefit not derived under the previous accounting system is the following response to a customer's call reporting trouble with her cable T.V. reception. The company retrieves from the on-line data base the names and phone numbers of her north and south neighbors and calls them to find out if they have a reception problem. This pinpoints the problem to the cable or the T.V., improving customer satisfaction through fast response, and possibly saving a service call.

A related data base holds the inventory system for control of the home scrambler/descrambler units for cable T.V. tuning.

By using on-line HP CRT terminals three clerks are able to process the 700 to 1000 daily payments and make additions or changes to a customer's service.

The radio stations each have an on-line data base to accurately track commercial time availability. A salesman can phone in to find out if a one minute commercial spot for, say, a soft-drinks bottler is available at 3 P.M. Monday, Wednesday, and Friday for the next 3 months. Additionally, he can check adjacent spots to ensure there are no conflicting product or industry commercials within a particular time period. Engineers at the radio stations have been pleased with the 3000's versatility in enabling them to program engineering designs for antennas, transmission patterns, etc. in either BASIC or FORTRAN instead of the conventional languages, RPG and COBOL. DJ's have a music library data base to help them in their scheduling of records to be played.

The Vice President of the company has a terminal on his desk which he uses daily for a variety of applications: a self-written executive compensation program, a forecasting model, pro-forma accounting statements or a valuation model for potential acquisitions.

The conversion from the System 3 to the 3000 was described by the data processing manager as "painless". They noted that RPG on the two systems was nearly 100% compatible, the exceptions being very minor and easily changed. "It has been helpful working with HP", he added. "the service has been excellent." The system has been extremely reliable in the six months since installation: not a single hardware failure, meaning no time lost on the system. And when the electric power was interrupted in a storm, the power-fail auto restart feature brought the system up with a message on the terminals "POWER FAIL" and work continued - with nothing lost.

Used 2000 System for Sale

By: *Dan Davis*:GSD

Bill Moore, F. E. King of Prussia office, is currently working with a potential 3000 customer who now owns a 2000 Access Mod 30. This 64Kb machine contains standard equipment and is ten months old.

If you have any questions regarding exact configurations or possible leads, please contact *Bill* directly at (215) 265-7000.

CS GROUP NEWS

Important—Coordinated Shipment Update

By: Sherry Harvey/CSG

We are striving to increase the efficiency of our coordinated shipment program and to ensure its overall effectiveness. To make sure that your coordinated shipment orders work, you should review and thoroughly understand the following coordinated shipment definitions and guidelines:

1. A *coordinated delivery* order involves multiple supplying divisions and contains a system and/or products to be installed and integrated by HP personnel at the customer's site, thereby requiring all products to arrive at approximately the same time.
2. Only *defined* systems as described in the system's Configuration Guide will be coordinated for delivery.
3. Only peripherals that are in the Configuration Guide and ordered with the system will be coordinated (see 6 below).
4. Parts and consumables will be *excluded* from all coordinated delivery orders.
5. OEM's buying standard systems will have only the first system coordinated (since it is installed). Subsequent systems will be coordinated only if they are requesting additional installations at a 1% (of system cost) charge.
6. Add-on item orders *will not* be coordinated except:
 - a. When ordered with the 93723A racking option (9640 and 1000 systems).
 - b. When components of an installed subsystem come from different divisions (e.g., 2617A LP and option 300 from Boise and 30209A I/F from GSD).
7. Orders which do not qualify *will not* be coordinated simply because:
 - a. The customer would like a single invoice.
 - b. They want everything delivered at the same time.

To avoid putting yourself in an awkward situation, inform your customer of our delivery policies. Orders with realistic required dates based on product availability will be handled on a "best effort" basis by the factories.

If your customer still demands a single delivery, you may order it as a "special" (contact factory) with a "special" charge.

Handy Reference List

The following is an updated version of the Coordinated Shipment Product Reference List published in the November 1, 1976, Newsletter (Vol. 2, No. 1). It summarizes the most frequently ordered systems and products which may be coordinated under the new, November 1, policy (HEART MANUAL IV. 14, page 10, and CSG Policies and Procedures II.3).

- A. If any of the following systems or system products are ordered:

2170A	9640A	19702A
2171A	2026A	30209A
2172A	32416A	30215A
2173A	32418A	30229A
2174A	19700A	93723A

- B. Then the following peripherals can be coordinated:

Supplying Division	Product	Description
Boise (46)	12925A	Paper Tape Reader
	2762A	Terminal Paper
	2762B	Terminal Paper
	2752A	TTY
	2749B	TTY
	12970A	Tape Drive
	12971A	Tape Drive
	12972A	Tape Drive
	7970B	Tape Drive
	7970E	Tape Drive
	12975A	Line Printer
	12983A	Line Printer
	12984A	Line Printer
	12987A	Line Printer
	13053A	Line Printer
	2607A	Line Printer
	2613A	Line Printer
	2617A	Line Printer
	2618A	Line Printer
	2767A	Line Printer
	12986A	Card Reader

Supplying Division	Product	Description
Disc Memory (48)	13180A	Disc Drive
	13180B	Disc Drive
	12960A	Disc Drive (add-on)
	-010	
	7920S	Disc Drive
	13013A	Cable
Data Terminals (42)	13395A	Dual add-on drives
	2640B	Terminal
	2641A	Terminal
	2644A	Terminal
	2645A	Terminal
	13246A	Printer Subsystem
General Systems (47)	13349A	Printer Subsystem
	12985A	Card Reader
Automatic Measurement (06)	9603R	Remote Station
	9611R	Remote Station
	91000A	A/D Card
	9571A	Digital Test Station
Data Systems (22)	12926A	Paper Tape Punch
	12531D	I/F
	12618A	Sync Modem I:F
	12920A	MUX
	12979A	I/O Extender
	40021A	Table
Grenoble (63)	3070A	Applications Terminal
	3071A	Applications Terminal
	92900A	Applications Terminal
San Diego(11)	7260A	OMR
	12935A	Plotter
	7202A	Plotter
	7203A	Plotter

This list *does not* include the products which are either options to the systems or accessories in the Configuration Guide which are supplied by the system division. These will be automatically coordinated with the system order.

It is easy for you to ensure that your order will be coordinated correctly. You can guard against delay and possible customer irritation if you simply:

- A. Make sure that your order qualifies for coordinated shipment.
- B. Place coordinated items on a separate section on your quote as well as your order. If more than one non-identical system is ordered, place on separate sections.
- C. Make sure a "no partial code" of 6 or 8 (international) and appropriate special instructions are specified at order entry for each coordinated section.
- D. Specify a reasonable required date by considering the availability of each item on the section.
- E. Do not include parts or consumables on coordinated sections.

Order Processing will be very helpful in coordinating your order if you simply provide the correct data. It is to your advantage to quote your system according to these guidelines, thus, eliminating any surprises at order or shipment time.

New reports for tracking each coordinated delivery order have been prepared by the Corporate Marketing Services Group. The field sales office and factories will have better visibility of your coordinated delivery order with these reports.

European sales offices will be requested to adjust their required dates on coordinated delivery orders to reflect differences in shipping times between U.S. and international factories. More work is currently underway in the Computer Systems Group and Corporate Marketing Services to further improve international deliveries.

The factories are 100% behind satisfying all coordinated delivery orders. Every reasonable effort will be made by all divisions to ensure a successful coordinated delivery policy which will lower transportation costs between factories, reduce inventory costs, and increase profits.



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