



## Joel Schwartz appointed to new Educational Marketing position

Joel Schwartz has been appointed to the newly created position of vice president of Educational Marketing, reporting to Ed Kramer, vice president, Technical Group.

In his new position, Joel will be responsible for optimizing Digital's efforts across all company functions and marketing groups dealing in the Educational markets. This will include direct responsibility for the Educational Computer Systems (ECS) group and chairmanship of the Educational Investment Review Board. Bob Trocchi will remain as Product Group manager of ECS reporting to Joel.

A Digital employee for 15 years, Joel joined the company as a sales engineer in Washington, D.C. Since 1968, he has served as a Washington, D.C., District Sales manager, Laboratory Data Products manager and group manager for Small Systems. He was elected vice president in 1981.

Joel holds a bachelor's and master's degree in electrical engineering from Case Western Reserve University and attended the Stanford University Executive Program.



Joel Schwartz

## Larry Cabrinety joins Digital as Printed Wire Boards Group manager

Larry Cabrinety recently joined Digital as a Group manager of Printed Wire Boards (PWB) and member of the Large Scale Integration (LSI) staff.

In his new position, Larry will report to Jeff Kalb, vice president, LSI Manufacturing and Engineering, and will be responsible for the Boards business including External Board Buy (EBB) operations and the Greenville, South Carolina plant.

Larry comes to Digital from Control Data Corporation where he was vice president for Automation. He received his bachelor's degree in chemical engineering from Clarkson College of Technology in New York and his master's degree in engineering administration from Syracuse University.



Larry Cabrinety

## Professional Golf Association purchases Rainbows

After reviewing proposals from Digital and many other vendors, the Professional Golf Association (PGA) chose the Rainbow 100+ as the personal computer to use throughout the organization.

The PGA has currently purchased 65 Rainbows which are distributed across the country in their local "section offices" and at their headquarters in Palm Beach Gardens, Florida. At the section offices, employees use the Rainbows for writing promotional programs, member records, track contributions and up-to-date golfer rankings.

All the Rainbows are connected to the CompuServe® network which enables electronic mail communication, use of an electronic bulletin board for the latest tournament and events information, and a listing of biographies of important golfers.

Maureen Pomper, Digital's PGA Account Manager in the Miami sales office, says that Digital first learned of the PGA's interest in the company's products when the PGA asked for bids on a mainframe computer. "Through these negotiations we learned about them and they learned about us," says Maureen, "so when the PGA started looking at personal computers, they thought of Digital."

The PGA was looking for a personal computer that was expandable, well-supported by a strong service organization, could run golf software packages, and was manufactured by a major company that would be in business for a long time.

Digital's Southeast District's Professional Software Services Organization developed a custom membership and handicapping software system for the PGA called Golf Operations System (GOS).

As their software needs grow, the PGA will be able to choose between more customized software created by Digital and any third-party golf packages. Golf cart management, golf course maintenance, and tournament packages are possible examples that may become available through Digital Classified Software in the future.

In addition to the sale to the PGA, Digital's Miami sales office recently sent a direct mailing to more than 13,000 PGA members across the country with explicit information on how to buy a Rainbow. "Now that the PGA has standardized on Rainbows," says Maureen, "it's the natural choice for many PGA members who will be looking for a personal computer."

- CompuServe is a trademark of CompuServe, Inc.

## CAEM and GenRad, Inc. jointly promote software

Digital's Computer-Aided Engineering and Manufacturing (CAEM) group has entered into an agreement with GenRad, Inc. of Santa Clara, California to jointly promote GenRad's HILO-2® logic simulation software programs on Digital's VAX family of products.

The HILO-2 software will be promoted by Digital's salesforce as an engineering tool for design verification and testing of digital electronics. The HILO-2 simulator helps improve productivity and reduces the amount of time needed for engineering, design and testing of integrated circuits (ICs) such as gate or cell arrays, and custom ICs before the product is marketed.

GenRad's software allows IC design engineers to debug logic behavior, verify and simulate design, provide detailed timing analysis, use hierarchical simulation techniques to manage design complexity at the highest conceptual levels, and check circuit behavior with fast fault simulation.

The cooperative marketing agreement is being conducted by CAEM to forge third party agreements with software development companies whose products run on VAX systems.

- HILO-2 is a trademark of GenRad, Inc.



## Matching Gift Program on increase

Due to employee involvement from June 1983-84, the Matching Gift Program has increased 20 percent in dollars matched and 23 percent in employee donations. During this time, \$795,920.60 has been matched to 2,144 organizations involving 11,394 employee gifts.

The company matches employee donations, from \$10 minimum to \$1,000 maximum, on a dollar for dollar basis, so organ-

izations deemed worthwhile by employees are benefited and supported.

The program matches gifts to educational, cultural, social services, and hospital/health agencies and is open to permanent employees, retirees, Board of Directors, as well as spouses.

For more information on the Matching Gift Program, contact your local Personnel office.

## Fall courses from Northeastern offered on site

Northeastern University is offering state-of-the-art engineering courses in undergraduate and graduate programs in electrical, industrial and mechanical engineering. They will begin this fall at APO and HLO.

Graduate level courses being offered include: Digital Computer Architecture; Software Engineering; Linear Systems Analysis; Classical Control Theory; Math Methods in Electrical Engineering; Linear Active Circuits; Applied Probability and Stochastic Processes; Org. Perspectives and Project Management; Computer Aided Manufacturing; Basic Information System Technology; Engineering/Organizational Psychology; Production Analysis; Probability and Statistics; Essentials of Fluid Dynamics; Math Methods in Mechanical Engi-

neering; Theory of Elasticity and Advanced Thermodynamics.

Undergraduate courses available are: Algebra and Trigonometry I; Engineering Graphics I; Introduction to Programming (Pascal) and Physics I.

State-of-the-art engineering courses include: Artificial Intelligence; "C" Programming Language; Data Communications Systems and Solid State Principles.

A live television and telephone hookup will be available for employees to have questions answered. Videotapes are provided for students to catch up on missed classes.

For more information about the course offerings, contact Karen Carmean, APO1/D16 on ERIE:CARMEAN.

## Inspection Moderator's Workshop on August 8 and 9

A two-day Inspection Moderator's Workshop (J2143) is being offered at the Bedford Training Center. Attendees may include engineers selected by their managers and anyone who wants to learn about inspection in depth.

Formal inspection is conducted in the presence of peers, rather than supervisors, so managers are not moderators. However, managers may wish to attend this workshop in order to better understand the inspection process.

Attendees will be trained to conduct overviews, train inspectors, lead formal inspections, and report results.

There are no prerequisites for the workshop, but it will be helpful if the attendee is capable of leading a meeting, has achieved an appropriate level of maturity, and is experienced within the Digital environment. Moderator trainees should also be willing and able to act as inspection moderators for their own groups, and from time to time, for other groups.

For more information, contact Lou Cohen via the Engineering Network at ADVISE::COHEN or DIN: 381-1339. To register, contact the Educational Services Registrar at DIN: 249-4670



## EMPLOYEE KUDOS

William Koteff, senior manager for Engineering Product Planning, has been named to the Engineering Board of Visitors at Western Michigan University.

The board is designed to provide the dean of the university's College of Engineering and Applied Sciences with advice and counsel from leaders of industry, government and education who have a common interest in technological education.

## Digital receives award for \$1M in VAX software performance monitor sales

Digital was recently given the Million-In-One award by International Computer Programs, Inc., publishers of the Business Software Review magazine, for achieving \$1 million in software product sales in the first year the VAX Software Performance Monitor (SPM) was on the market.

The VAX SPM is used for collection of data for software tuning, and monitors the performance of the VAX enabling customers to allocate costs to system users. In addition, the VAX SPM has a disk analyzer which monitors disk usage and a program execution tracer which lets programmers analyze software they have written.

Since the product's introduction in late December 1982, Digital has sold more than 800 licenses. At present the VAX SPM is being used for system tuning and capacity planning for 50 of the fortune 500 customers.

## Physics of microfabrication

30 July - 3 August  
Mt. Washington Auditorium  
HLO2-1, pole M10

Instructor: Rafael Reif, Massachusetts Institute of Technology

Prerequisite: College physics and some background in integrated circuit fabrication.

The course describes the theoretical and practical aspects of the processes used in the fabrication of silicon monolithic integrated circuits. All major topics on VLSI processing are covered, paying special attention to the important steps in the fabrication of VLSI circuits. These are: bulk crystal growth (Czochralski); thermal oxidation of single-crystal and polycrystalline silicon; solid state diffusion in silicon, silicon dioxide and polysilicon; ion implantation (ion and damage distributions, annealing); epitaxial deposition and autodoping; chemical vapor deposition of polysilicon, silicon dioxide and silicon nitride; plasma-assisted depositions; plasma and reactive ion etching, metallization, refractory metals and silicides for gates and interconnections; lithography; and laser/electron beam processing.

Each topic of VLSI processing is dealt with separately. After an overview of the topic, the basic science underlying the individual process step is discussed, and the importance of each particular step is emphasized.

This course is a full-time commitment with required homework each evening. \$850 For more information contact: Brenda Flaherty, DTN 225-5221; HLO1/007; enet HUDSON::FLAHERTY.

## DIGITAL THIS WEEK



Editor: Jane Littlejohn

Send stories, photos, ideas or suggestions to DTW, CFO2-3/K23 or call the editor at DTN 251-1307. Ads must be submitted in writing to Marketplace, CFO2-3/K23. Please direct all Marketplace inquiries to Jennifer Hawes at DTN 251-1308.

Digital This Week is published every other week by the Corporate Employee Communication department of Digital Equipment Corporation for the Employees in the Greater Maynard area.



## Women-owned business trade fair a success

Thirty-six women business entrepreneurs had an opportunity to meet with more than 100 buyers from Digital, Polaroid, Wang, Boston Edison and other major companies at the "Women in the Mainstream" trade fair held recently at the Sheraton Inn and Conference Center in Boxborough.

The fair was sponsored by the Small, Minority and Women-owned Business Program. At the fair, Digital buyers were introduced to New England area businesses which are owned, operated and controlled by women. Some of the services offered by suppliers included metal fabrication, plating, training consultants, advertising specialties and electronics distributors.

"The suppliers feel that they made contacts that would have normally taken them six months to make. In fact, several suppliers

received purchase orders the week after the fair from buyers who they had just met," said employee Joan Alizzio from the Small, Minority, and Women-owned Program office in NRO5.

The trade fair was the official kickoff of the Women-owned Business Program, which will require Digital buyers to set spending goals for women-owned businesses, in addition to their minority vendor spending goals. The Minority Vendor Program has been broadened with this increased emphasis on women suppliers, as part of the corporation's ongoing effort to utilize disadvantaged business concerns whenever feasible.

For more information on the Women-owned Business or Minority Supplier Program, call DTN 234-5371.



(l-r) Committee members Debby Grasso, Doris Heuser and JoAnne Martin helped organize the "Women in the Mainstream" trade fair held recently at the Sheraton Boxboro.

## CAD for VLSI

20-24 August

Mt. Washington Auditorium

HLO2-1, Pole M10

Instructors: Richard Newton, University of California at Berkeley, and Alain Hanover, Manager, VLSI Architecture AD, Digital.

The CAD for VLSI course covers Digital's IC CAD tools as well as industry and university CAD Tools and Algorithms used in the design and analysis of Integrated Circuits.

The course starts by covering IC design systems in Industry and Digital. The course then covers most aspects of design simulation and implementation. Topics in simulation include: principles and uses of behavioral simulation, logic simulation, circuit simulation, and testability analysis with emphasis on DEC's internal tools.

IC design methodology and CAD tools for design implementation that are covered include: various layout and circuit design systems, analysis tools, synthesis tools, and design verification. Homework exercises each afternoon will make extensive use of DEC CAD tools and include: DEC-SIM Behavioral Simulation, DECSIM MOS-level simulation, SPICE Circuit Simulation, and MAX Layout design with emphasis on CMOS design.

Prerequisites include: 1. VLSI Short Course; 2. Experience with some VAX VMS system is helpful.

Courses will be filled in the order that completed registration forms are received. This course will have a limited enrollment of 40 students. The course will be held from 8:30 a.m. - 5:00 p.m. Aug., 20-24 in the Mt. Washington auditorium, HLO2-1, Pole M10. Sign-in will take place from 8:00 - 8:30 a.m. Coffee and refreshments will be served.

The fee, which includes the textbook, "Computer Design Aids for VLSI Circuits," extensive notes and lunch on the first day, for the course is \$750.

## Three new titles from Digital Press

Three new titles are available from Digital Press.

**Programming with RT-11: Volume 2 Callable System Facilities**, by Stephen Peters, Kevin Small, Anne Summerfield and Julie Wright, continues the discussion of RT-11 facilities used to develop MACRO-11 and FORTRAN IV programs. Synchronous and nonsynchronous I/O operations, and programmed requests for both file and terminal I/O, and foreground/background communication is also explained.

The book is paperbound, 255 pages. Order number: EY-00023-DP. Price: \$26. ITP: \$11.

**Tailoring RT-11: System Management and Programming Facilities**, by Simon Clinch, Stephen Peters, Kevin Small and Anne Summerfield, is the final book of the four-volume RT-11 Technical User Series. Tailoring RT-11 is designed for experienced RT-11 users who need to perform system management functions and for programmers who want to gain an in-depth understanding of the system. The book discusses system generation, system and volume maintenance procedures, internal allocation of system resources, the

scheduler, writing a device driver, and memory management directives.

The book is paperbound, 220 pages. Order number EY:00024-DP. Price: \$36. ITP: \$15.

**Going Online: Communications on the DEC Rainbow**, by Alfred Glossbrenner, is adapted from Glossbrenner's best-selling book, "The Complete Handbook of Personal Computer Communications," a comprehensive sourcebook for telecommunications on the DEC Rainbow 100 and Rainbow 100+. Going Online shows how to use modems, the Poly Package: Digital's communications software, explains the home/office interface, and introduces money-saving tips for using The Source, Dow Jones News Retrieval, DIALOG and BRS. Also included in the book are lists of toll-free numbers, database directories, real-time computer games, free software and information on "downloading" thousands of programs, electronic banking and investment management, online shopping, and a glossary of communications terms.

The book is paperbound, 325 pages. Order number EY-00035-DP. Price: \$17. ITP: \$8.

## New Seminar Programs Catalog available

The sixth issue of the Seminar Programs Catalog from Educational Services is now available. New courses listed in the August to March schedule are:

- Network Management and Control Centers
- Implementation and Operating LANs
- Fourth Generation Languages
- VAX/VMS V4.0 Update Seminar
- RSTS/E V9.0 Update Seminar
- Microcomputer DBMS Comparisons
- Advanced dBASE II

- Structured Systems Analysis
  - Structured Systems Design
- Also, two seminars in the networking series have been revised and updated:
- Networking, Architectural Concepts
  - Local Area Networks

Fifty-three seminars in eight series are open to employees and customers. To request a copy of the new Seminar Programs Catalog, please contact the Seminar Programs Registrar at DTN 249-4949 or 617/276-4949.

## Courses offered by Ed Services Seminars

For more information or to register for the following courses, call the Seminar registrars indicated below with the specific seminar dates. Software Services employees should contact their Software Services Registrars.

### **Networking: Architectural Concepts with Examples of Computer Communications Networks (EY-CB351-SO)**

This three-day technical seminar for anyone involved in the design, use, or selling of networks is a state-of-the-art presentation of fundamental concepts, technology, and practical implementation of computer networks. It includes a thorough discussion of network architectures, components, and structures with a focus on complete network design.

Design and software engineers, project managers, systems analysts, network planners, or anyone new to the field will find assistance in doing initial network planning or evaluating alternative network designs. July 23-25, Marlboro; DTN: 249-4949

### **VAX/VMS System Performance Management (EY-1367E-SO)**

This seminar is designed to help students maximize returns on their system investments. Organized into several modules on one or more specific skills, the course uses lectures and discussions to communicate its message. Common problems are examined and recommendations made to improve VAX/VMS performance.

Prerequisites: Completion of the Digital Training Center course in VAX/VMS System Management, three to six months systems management experience on a VAX/VMS system, attendance at the Digital System Performance Management and Capacity Planning Seminar.

## **Marlboro Custom Courses August Course Schedule**

August 6-10  
Colorado Springs Room  
MR02 MFG/Training Ctr.  
8:30 - 4:30  
Cost \$600  
Class Size: 16  
VAX/VMS Utilities and Commands  
Ed Services On-Site  
REGISTRATION DEADLINE: July 23

August 17  
DEC 10 MR01-2  
8:30 - 4:30  
Cost \$175  
Class Size: 25  
PROJECT MANAGEMENT: Selection, Monitoring, and Termination  
Professor R. Balachandra, Northeastern Col. of Business and Strategic Management  
REGISTRATION DEADLINE: August 3  
Information on registration contact:  
Claudette Small at 231-5097 or  
CSMALL:KL1031

Participants will gain a thorough understanding of distributed database systems and application design. The seminar will also discuss the evaluation and selection of DBMSs.  
August 1-3, Bedford; DTN: 249-4380

### **Financial Management Using Rainbow 100 (EY-2081E-SO)**

Designed for professionals currently in managerial positions, this seminar will aid in increasing productivity by teaching effective use of the Rainbow-100 personal computer. Important trends in personal computer hardware and software technology will be presented to assist participants in making business systems decisions.

August 1-3, Bedford; DTN: 249-4380

### **DECnet/VAX Internals (EY-1740E-SO)**

This seminar presents the implementation details of the Digital Network Architecture (DNA) under the VAX/VMS system. Attendees will learn about the interface between the VAX/VMS executive and the DECnet software. They will also learn to use the listings effectively in order to confirm and extract information within minutes rather than hours.

Prerequisites: Training and/or experience in VAX/VMS MACRO programming, VAX/VMS Internals, DECnet-VAX network usage and programming, and DECnet protocols.  
July 25-27, Boston; DTN: 249-4949

### **DECnet/RSX Internals (EY-1739E-SO)**

This seminar presents the implementation details of the Digital Network Architecture (DNA) under the RSX/11S/M/M-PLUS systems. Attendees will learn about the interface between the RSX executive and the DECnet software. They will also learn to use the listings effectively in order to confirm and extract information within minutes rather than hours.

Prerequisites: Training and/or experi-

ence in MACRO-11 programming, RSX/11S/M/M-PLUS Internals, DECnet RSX network usage and programming, and DECnet protocols.  
July 30-August 1, Concord; DTN: 249-4949

### **TOPS-20 System Performance Management (EY-1362E-SO)**

This lecture, discussion, and workshop is designed to help you maximize the return on your DECSYSTEM-20 investment. It introduces the basic concepts of performance evaluation, examines common performance bottlenecks, and presents specific ways to improve your system. In addition, this seminar presents performance implications and tradeoffs involved in using various programming techniques and practices.

Prerequisites: Recommended completion of Digital Training Center course in TOPS-20 administration; three to six months systems management experience on a TOPS-20 system; program development abilities in a TOPS-20 language, such as Cobol, Fortran, or BASIC; attendance at the Digital TOPS-20 Monitor Structures course.  
July 30-August 1, Cambridge; DTN: 249-4949

### **Database Technology: The Key to Software Productivity (EY-AX007-SO)**

This three-day seminar will provide a thorough overview of the basic concepts of data models and the physical organization of databases. An important part of the seminar will be a comparison and contrast of the three significant database models: relational, CODASYL, and hierarchical. The participants will gain a thorough understanding of distributed database systems and application design. The seminar will also discuss the evaluation and selection of DBMSs.

August 1-3, Bedford; DTN: 249-4380

## **Course offerings from DME**

### **ZERO-BASED BUDGETING**

Intended for managers who need to acquire the necessary knowledge and skills to fully implement Zero-Based Planning and Budgeting in their organizations.  
AUG 2-3, GREATER MAYNARD AREA

### **CALCULATING HUMAN RESOURCE PROGRAM COSTS & BENEFITS**

Intended for Personnel professionals.  
AUG 14-16, GREATER MAYNARD AREA

### **ENTERPRISE ENGINEERING: A Systematic Approach to Product Management**

Intended for managers with product responsibility from Manufacturing, Engineering, Customer Service, Finance and Marketing. Of benefit to those concerned with the impact of product strategy develop-

ment on resources, finance, materials, capacity and human resource planning.  
AUG 27-30, BEDFORD TRAINING CENTER

### **FIELD SERVICE UNIT MANAGER**

Intended for new Field Service Unit managers.  
AUG 20-31, BEDFORD TRAINING CENTER

To register, please call the DME Registrar at: DIN 249-1881/1882 or (617) 276-1881/1882.

Please watch for the FY'85 Digital Management Education Catalog or call the DME Registrar for detailed course information.



## NEWS BRIEFS

### Deadlines for 'Digital This Week'

Deadlines for *Digital This Week* have been established to help you plan events and publicity around certain editions of the paper. Deadlines don't pertain to Marketplace, which is first come, first served. The next four issues and deadlines for DTW.

August 6 issue--July 25 deadline  
August 27 issue--August 15 deadline  
September 10 issue--August 29 deadline  
Sept. 24 issue -- Sept. 12 deadline

### Current aircraft schedule effective until Dec. 31

The printed aircraft schedule currently in circulation throughout the company will remain in effect until December 31. Copies of this schedule may be obtained from facility reception areas or by calling Aviation Services at DTN 249-4980.

### Correction

Due to an oversight in the July 9 issue of DTW, the name of Patricia Roach, daughter of Edward Roach, lead electrician in Acton, was inadvertently omitted from the listing of Digital dependents receiving scholarships to Phillips Academy in Andover, Mass.

### Annual Field Service maintenance agreement to be mailed

The In-DEC Field Service Region reports that the annual mailing of Field Service Maintenance Agreements will take place the last week of July. All cost center managers are urged to read accompanying instructions and return the reports as soon as possible to their local In-DEC Field Service Office.

These agreements reflect equipment maintenance costs that will be charged monthly to each cost center as of the beginning of the FY85. Cooperation by each cost center will result in accurate monthly charges.

For more information about the process, contact your cost center manager or local In-DEC Field Service office.

### National Merit Scholarship test date scheduled

National Merit Scholarship Corporation has set two test dates for the PSAT/NMSQT, the qualifying test administered by National Merit.

Secondary schools may schedule to give the test on either Saturday, October 20 or Tuesday, October 23.

Dependents of full-time Digital employees are eligible to compete in the Digital National Merit Scholarship Program, provided they take the PSAT/NMSQT in the fall of their junior year. Applications for scholarships are sent to each semi-finalist by National Merit in the fall of their senior year. Applications are not available through Digital.

For more information regarding the Digital National Merit Scholarship Program, contact Judi VonDohlen at DTN 223-5320.

## TECHNICAL SEMINARS

This is an integrated calendar of seminars for HLO, MRO, and TWO.

Unless otherwise indicated seminar locations are as follows:

HLO	Hall of White Mists
LTN	Cafeteria
MRO	DEC 10/20
TWO	Cafeteria

Tentative Schedules

Subject to change

For information contact:

HLO	225-4071	HUDSON::NACE
LTN	229-6242	PHENIX::JPOTTER
MRO	231-6769	DEMILO::PRUITT
TWO	247-2643	HYDRA::SLINN

#### Wed., Aug. 1 - 3:00-4:30

Littleton Cafeteria  
Jim McElroy-Marlboro  
*A Marlboro Development Project-Title to be announced*

#### Wed., Aug. 1 2:00-3:30 MRO

Meyers Billmers and Mark Swartwout/DEC AI Group

*AI-SPEAR: Computer System Failure Analysis Tool*

#### Fri., Aug. 3 - 8:00 HLO

Jack Arabian/Digital  
*"Process Design in Japan"*

#### Wed., Aug. 8- 3:00-4:30

Littleton Cafeteria  
Dr. William McKeeman-Professor of Information Technology, Wang Institute  
*"The Role of Notation in Problem Solving and Translator Writing in Particular"*

#### Thurs., Aug. 9 - 2:00-3:00 HLO

Joseph Hatvany/Hungarian Academy of Sciences  
*"World Survey of CAM"*

#### DTA 3:30-4:30 HLO

*"Intelligent Manufacturing Systems - A Strategy for the Future"*

#### Fri., Aug. 10 - 10:00-12:00 HLO

Dave Gifford/M.I.T.  
*"Technology Behind the Boston Community Information System"*

#### Wed., Aug. 15 - 3:00-5:00

Littleton Cafeteria  
John Manzo-Corporate Manager of Hardware Management  
*"Management of Complex Systems Development"*

#### Wed., Aug. 15 - 10:00-11:00 HLO

Richard Muller/U.C. Berkeley  
*Charge Pumping and Sensing in MOS Devices*

#### Date TBA for 3rd Week of Aug. - 2:00-3:30 MRO

Ed Lazowska/University of Washington  
*"Analyzing Queueing Networks with Simultaneous Resource Possession"*

#### Mon., Aug. 20 - 3:00-4:00 HLO

Henk Sips/Delft University, Netherlands  
*"Architecture and Programming of the Delft Parallel Processor"*

#### Tues., Aug. 21 - 10:00 HLO

Lester Eastman/Cornell University  
*"Overview of 3-5 High Speed Semiconductor Devices"*

#### Wed., Aug. 22 - 3:00-4:30 TWO

Bruce Luhrs/Networks and Communication  
Software Engineering  
*"Etherfix, A Network Maintenance Server"*

#### Thurs., Aug. 23 - 2:00-3:30 MRO

Alan Kotok/LVE ADV Development Group  
*"SAFE: Simplified Architecture for Fast Execution"*

#### Thurs., Aug. 23 - 10:00-11:00 HLO

Ralph Cavin/Semiconductor Research Corp.  
*"Overview of SRC Design Sciences Research"*

#### Tues., Aug. 28 - 10:00 HLO

Ted Equi/Digital  
*"Yield Enhancement Using Bit Map Analysis"*

#### Thurs., Aug. 30 - 2:00-3:30 MRO

Meyer Billmers/DEC AI Group  
*"TVX: Tops to VMS Expert Advisor"*

Thurs., Aug. 30 - 10:00-11:00 HLO  
Forest Baskett/DEC  
Titan



## APPLIANCES

FREEZER, Whirlpool, 16 cu ft, upright, manual defrost, key, white, \$175, B/O, Anne, 273-3074

DRYER, Norge, broken timer/relay, \$50, B/O, WASHER, GE, gd cond, 14 lb load, \$150, B/O, Joe, 289-1132

ELECTRIC STOVE, GE, 36", white, \$50, B/O, Robert, 223-9456

## CARS

'78 FORD MUSTANG, 2+2, V6 auto, AC, AM/FM, 88Kmi, one owner, snows, new batt, \$3200, Debbie, 288-7411

'79 FORD FAIRLANE, PS, PB, AC, AM, 74Kmi, from Phoenix, AZ, \$2500, Linda, 231-5420

'75 SAAB, auto, gd body, no rust, exc eng/trans, has elect problems, not running, \$700, Karen, 231-7082

'82 MAZDA GLC SPORT, hatchback, 39Kmi, AC, AM/FM, 5spd, CB, brown, exc cond, \$6000, Brett, 225-4332

'84 VW RABBIT GTI, sunrf, AM/FM, rustprf, great car, \$8100, Erik, 289-1681

'72 GREMLIN, re-blt trans, still under warr, strong eng, no dents, runs gd, \$700, B/O, Janet, 249-4277

'80 DATSUN 210, 4dr, AM/FM, 51Kmi, 4 new tires, yellow, \$2950, Sylvia, 249-4038

'81 DODGE OMNI, auto, 4dr hatch, AC, Chapman lock, AM/FM, \$3600, B/O, Diane, 249-4434

'83 OLDS CIERRA, FWD sport susp + tires, auto, AC, 10 Kmi, fast, loaded, mint cond, \$9750, Don, 282-2390

'82 TOYOTA COROLLA, 5spd, 4dr, 26Kmi, AM/FM, Chapman lock, rustprf, exc cond, \$6100, Maria, 274-6582

'78 AJDI FOX, 4dr, AC, new radials+exh, AM/FM, low mileage, silver, \$3000, Joe, 223-2590

'78 CAPRICE CLASSIC, V8, velour int, new tires, one owner, AM/FM, 99Kmi, gd cond, \$2500, Judy, 276-9529

'79 CAMARO, 69Kmi, black, exc cond, \$4000, Ann, 274-6506

'80 DATSUN 510, hatchback, auto trans, factory AC, AM/FM, exc cond in-out, \$3500, Ronna, 276-9948

'80 TOYOTA COROLLA SR-5, hatchback, rfrack, exc cond, Iva, 223-8982

'83 VW RABBIT, 4dr, sunrf, AM/FM, low mileage, exc cond, \$6000, John, 273-3527

'78 CHEVY MONZA, hatchback, 4spd, 4cyl, AM/FM, new snows, 54Kmi, gd cond, \$2100, Brenda, 231-7515

'78 VW RABBIT, 4dr, sunrf, gas, auto, AM/FM, new muff, tune-up, \$1895, B/O, Anne, 273-3074

'76 TOYOTA CELICA GT, 5spd, stereo, new trans+alt, hi mileage, \$1275, Ronnie, 251-1701

'78 SUBARU, FWD, auto, always garaged, no rust, one owner, exc cond, \$1950, Janet, 288-7513

'69 VINTAGE VOLVO, only 130Kmi, orig owner, \$600, Mary, 231-2305

'81 MAZDA 626 LUX, 2dr sport coupe, alloy whls, tilt whl, PW, PB, 62Kmi, AM/FM, grey, \$5650, Irene, 278-4632

'81 DATSUN 510, 4dr hatchback, auto, AC, AM/FM, rustprf, immac cond, \$4400, B/O, Barbara, 223-4291

'73 VOLVO 142S, re-blt eng+trans, new exh, 140Kmi, AM/FM, interior exc, sm rust, \$1000, Therese, 249-4375

'75 MALIBU STA WGN, 350 V8, PS, PB, AC, 3 seat, \$500, B/O, Charlie, 288-7723

'78 BUICK SKYLARK, 6cyl, PS, PB, new tires, FM, exc cond, \$2500, B/O, Tony, 223-7880

'76 CHEVETTE, 2dr, 4spd, 79Kmi, new snows, nds some work, \$1000, Tim, 223-6165

'76 CHEVY NOVA CONCOURS, 4dr, exc cond, \$1800, Carolyn, 251-1410

## FURNITURE

BUREAU, 9drawer, walnut, w/mirror, \$90; DINING SET, rosewood, 4hi-bck chairs, \$1499, Stephanie, 223-2292

DESK, single pedestal steel-case, w/cut-out for computer keyboard, gd cond, \$50, B/O, John, 228-2060

BAR, built in, solid oak top w/wine rack and other features, \$1000, B/O, Linda, 274-6951

KITCHEN STOOLS(3), cane seats + backs, exc cond, \$25ea, Frank, 288-6823

SOFA, contemp, 87", off-white, beige+brown pattern, like new, \$400, B/O, Marsha, 225-4830

## MISCELLANEOUS

ATARI 800, with disk drv, languages: BASIC, assembler, lots of games, ROM + disk, \$700, B/O, Gary, 231-4089

RECEIVER, Kenwood KR3200, \$40; TURNTABLE, Realistic, w/stylus, vy gd cond, \$20, Beverly, 223-9508

CELLO, 3/4 size, w/case+bow, beautiful tone, gd cond, \$650, Nic, 223-3588

'72 SEARS TRACTOR, 12HP, 42" 3-blade mower, 36" snow blower, gd cond, \$850, B/O, Claudette, 231-2431

BIKE WHEEL + TIRE, 10spd front whl + tire, top quality, alloy components, \$30, Sonia, 234-4284

UTILITY BASIN, industrial weight, 3" drain, integral floor mount flange, faucet, Steve, 226-7129

SERVICE MANUALS, for '70 Chevrolet, Chevelle and '69 Corvette, \$10, John, 237-2272

STEREO AMP, Marantz, 4chnnl quadrophonic, \$200, B/O, TURNTABLE, Dual 1214, gd cond, \$25, Carol, 237-3525

RADIAL ARM SAW, Sears Craftsman 10", w/steel legs, will deliver in 3M area, \$175, Bill, 223-7123

## MOTORCYCLES

'80 YAMAHA 650 SPECIAL II, 11Kmi, bkrest, black, exc cond, \$1100, Bev, 223-2913

'75 YAMAHA XS650, under 10Kmi, bkrest, rear carrier, 2helmets, nds some work, \$750, Mike, 223-2101

'78 SUZUKI GS400, 11Kmi, new tires, chain+sprocket, lugg rack, bkrest, gd cond, \$900, B/O, Dotty, 223-4456

'77 YAMAHA XS750-2D, shaft drv, 6Kmi, exc cond, \$1000, Joe, 223-6369

'81 KAWASAKI LTD 550, 10Kmi, 4cyl, well maint, Shoei helmet, exc cond, \$1100, B/O, Tom, 229-6366

'82 HONDA GL500 INTERSTATE, 1500mi, fairing, bags+trunk, new in 84, helmet, \$2350, John, 247-2188

## PETS

APPALOOSA MARE, 10yrs old, black, versatile, exc health+disposition, Eng or Western, Allan, 225-6043

KITTENS, 2, ready after 7/30, Betty, 231-4432

## REAL ESTATE

HUDSON, 7rm raisc. ranch, priv dead-end str, 1car gar, 3bdrm, \$89.9K, Rich, 251-1224

FITCHBURG, 2 family home, exc cond+location, 2bdrms per unit, many extras, low 60s, Steve, 288-6843

MILFORD, NH, new, energy efficient duplex condo, nice view, pond+stream, 2bdrm, \$55K, Tom, 282-2488

OSSIPEE, NH, 5 acre wooded lot, close to water and skiing, \$13K, Rosemary, 282-2558

## RECREATIONAL VEHICLES

'79 ROCKWOOD POP-UP CAMPER, slps6, 2burner stove, sink, exc cond, full tnk of gas, \$1800, Bill, 231-5473

BOSTON WHALER CATAMARAN, 17 ft, w/trailer, righting system, \$4800, George, 231-4137

'77 HERITAGE ROYAL TRUCK CAMPER, 11 ft, slps6, self-contained, sink, stove, like new, \$2900, Dan, 225-4787

SCHOOL BUS-CAMPER, slps10, toilet, stove, refrig, sink+more, mint cond, \$1000, B/O, Petra, 223-2951

COBIA, 18 ft, w/85HP OB and trailer, \$3000, Dixie, 223-7173

## RENTALS

TIME SHARE: Stowe, VT, lux 2bdrm condo, vacation exchange, increasing value, \$6400, John, 234-4285

CONDO, Sugarbush, VT, in village, 3bdrm, 2bath, maid serv, kitch, \$150/wkend, \$250/wk, Rob, 288-6558

COTTAGE, Lake Winnepesaukee, 2bdrm, 2min walk to sandy beach w/life guard, \$225/wk, Kevin, 279-5332

COTTAGE, Higgins Beach, Scarborough, ME, 3bdrm, porch, mod kitch, 1 block from ocean, \$325/wk, Pat, 231-6650

DUPLEX, Shrewsbury, 3bdrm, on Lake Quinsigamond, no kids or pets, \$450/mo, George, 237-2255

APT, Lancaster, 5rm, 3 frplcs, porch, 300yr old house, beautiful view, \$450/mo, elec inc, Linda, 223-2092

TOWNHOUSE, Hudson, 2bdrm, one w/loft, 1 1/2bath, nice development w/pool, \$650/mo, Julie, 231-7153

HOUSE, Meredith, NH, 3bdrm mod saltbox, fully equip, acc to priv beach, \$350/wk, 7/28-8/25, Ed, 237-3776

HOUSE, N. Conway, 3bdrm, 2bath, lakefront saltbox, \$300/wk, Van, 223-2856

CONDO, Freeport, Bahamas, 2bdrm, pool, golf, casino, wk of 9/1-9/8, \$300, Ray, 231-4243

CONDO, Marlboro, 2bdrm, wshdr/dryr, AC, elect heat, \$525+utils, Gary, 231-4089

CAPE COD: Bed + Breakfast, Dennis, walk to beach, village+playhouse, Dick, 223-5335

## ROOMMATES

M/F, non-smoker, 20-26, share 2bdrm Weston house, on pond, for 9/1, approx \$350+1/2utils, Eric, 223-7949

FEMALE, 25+, 2bdrm Waltham apt, AC, prkng, wshdr/dryr, no pets, avail 8/15, \$240, heat inc, Helena, 277-7168

FEMALE, share 3bdrm Victorian in Newton, non-sm pref, \$300+utils, Erik, 223-3004

M/F, to share ranch-style Southboro home, avail now, \$250+utils, Paul, 231-4404

M/F, share 2bdrm Hudson condo, 2bath, wshdr/dryr, conv to Rts 495+62, Beth, 223-2364

M/F, responsible, over 30, share 3bdrm Marlboro home, cable, no pets, \$325+food, Gerry, 279-5783

FEMALE, 25+, share 4bdrm Framingham house, \$175/mo+1/4utils, Mary, 237-2341

FEMALE, share 3bdrm Marlboro house, \$250/mo includes all utils+sec dep, Marcia, 234-5332

FEMALE, 21+, share 2bdrm N. Billerica apt, at Rt 129 + 3A, pool, \$275+elec, Kathy, 288-6149

## SPORTING GOODS

WINDSURFER SAILBOARD, sprint model, graphite mast, used 1 season, \$800, B/O, Dave, 247-2743

BICYCLE, Schwinn Continental, 10yrs old, 27", 10spd, in gd cond, \$80, B/O, Keith, 231-6518

PUCH MOPEDS(2), 1980 mini w/lo mileage, 1981 maxi deluxe, 1Kmi, \$750 firm for pr, Danielle, 229-6298

BICYCLE, man's 10spd Peugeot, 20" frame, gd cond, \$175, B/O, Sandra, 269-2483

BIKES(3), boys 20", \$20; boys 10spd Schwinn, 2 extra whls, \$60; mens 10spd, nds welding, B/O, Vic, 276-9831

## WANTED

TURNTABLE, w/connectors to stereo and 45 rpm spindles, Alan, 265-1562

BASEBALL CARDS, for money or donation to charity: DEC Doubles, Peter, 237-3088

APT, Acton, Littleton, Bolton, Stow area, lrg 4rm, quiet area, 8/1 or 9/1, flexible, Theresa, 223-4760

SPRINGSTEEN TICKET, Worcester Centrum, Sept 5 or 6, Bev, 223-3296

MOTORCYCLE FRONT END, for '77 Honda 750K series, or '77-78 Honda bike for parts, reas, James, 223-7710



## COMPUTER CORNER

Find out how to cut down on computer costs by contacting the Computer Transportation Department, DTN 223-7029

Call the following DTN numbers to join these routes.

### VANPOOLS

#### TO ACTON (ACO)/MAYNARD

From Amesbury, Haverhill and surrounding areas, Carol Abarbanell DCV #129, 223-4329

#### TO ACTON (AKO)/MAYNARD

From Amherst, NH, Doug Ryder #63, 288-7606

From Salem, NH, Rick Jaeger DCV #138, 223-6120

#### TO MAYNARD

From Forrest Hills Station, Cleveland Circle, Route 9 (7:45 to 4:30) Frantz Jean-Gilles DCV #64, 223-8405

From Nashua, NH, Bob Cormier DCV #123, 275-6232

#### TO MAYNARD/STOW

From Worcester, Denise Moran DCV #36, 223-2678

From Hudson, Nashua, NH, Bob Hoglund DCV #75, 223-5513

#### TO STOW

From Arlington, Shelley Goldfarb DCV #66, 276-9121

#### TO MARLBORO

From Westminster, Asburnham, Ashby, Pepperell, Townsend, Lunenburg, Fitchburg, Leominster to all facilities, (7:00 - 3:30), Bill Kilgore DCV #94, 231-7184

### FORMING VANPOOL

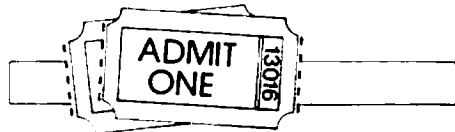
#### TO HUDSON (HLO)

From Pawtucket, RI, S. Attleboro, MA area, Wayne Fernald, 225-4533

#### TO NORTHBORO

From Watertown, Newton, Framingham areas, Cathie Ryan, 234-5390

## TICKET SALES



### Sunset Cruise

When: Saturday, August 18

Time: 8:00 P.M.

Cost: \$9.00

Where: Boston Harbor

Come aboard and refresh yourself with three hours of fun and sea breeze sailing to picturesque landmarks along Boston Harbor. Price includes the cruise, gourmet hors d'oeuvres and music by Jasmine.

Buses from Maynard will be offered if enough interest is shown. The cost of a bus ride will be an additional \$6.00 which must be included with order form. Orders must be received by August 6. Order forms are available from the Maynard Employee Activities Committee.

## New Offerings from Ed Services Seminars

### Network Management and Control Centers

Data communications networks have been multiplying, expanding, and moving into new domains such as office automation, electronic mail, personal computer networks, teleconferencing, and other interactive user services. These extensions of communication networks are adding a wide variety of vendors each providing product service and overlapping support. When problems develop in the network services, the user may be unable to determine what is wrong or how to correct the faults.

This seminar has been designed to provide guidance and procedures for the development, implementation, and operation of an internal communications' network management and control center. Such a center will assume responsibility for network service and relationships with all vendors and product suppliers in the communications networking system. The network control center will also attempt to integrate the variety of network functions and services to provide a constant surveillance of their performance and operation within the organization. The seminar is designed to present a comprehensive viewpoint on how to approach organized staff and operate a total communications network management center.

To appreciate the depth and content of this program, participants should be competent in the data communications field. The first offering for employees and customers will be held in the Boston area, August 27-29. To register, contact the Seminar Programs Registrar at DIN 249-4949 or 617/276-4949.

### Planning, Implementing and Operating Microcomputers in Communications Applications

The rapid growth of microcomputers in more and more organizations and applications is building a demand for a way to allow such units to move from limited stand-alone systems to integrated communications supported service networks. This seminar covers the complete range of communications service facilities available for microcomputers. It presents a definitive approach on microcomputer communications aspects that include:

- simple ASCII character communications
- file transfers
- host computer interfaced
- using local area networks
- microcomputers in office automation systems
- communicating to shared resources
- interfacing micro/personal computers and word processing
- accessing public databases
- supporting open systems in major vendor network architecture

This three-day seminar is intended for any person who has a basic understanding

of microcomputers and their capabilities and wants direction in developing data communications processes involving microcomputers.

Seminar leader Douglas P. Erb, senior consultant at International Management Services, Inc., has extensive experience in the areas of voice and data communications, distributed office systems, office automation, electronic mail, local networks and data communications. Mr. Erb has authored books on data communications, electronic mail, and voice communications.

To register for the Boston area offering for employees and customers, August 27-29, contact the Seminar Programs Registrar at DTN 249-4949 or 617/276-4949.

### Structured Systems Design

Systems design may be the single most important phase of the system life cycle because it is at the design stage where critical program structure decisions are made. This seminar presents structured design methods which will enable systems personnel to do adequate design work. Structured methods result in a logical design for the new system describing both data structures and processing functions and allowing flexible implementations. The seminar emphasizes working from data flow diagrams, data structure definition, normalization and recombination of data, and alternative partitioning techniques.

Systems analysts, designers, data processing managers, system managers, project leaders, software engineers, and user liaison personnel will benefit from this companion seminar to "Structured Systems Analysis."

Employees and customers in the Boston area may attend "Structured Systems Design" (EY-2336E-SO) August 27-29 at the Bedford Training Center. Other offerings will be in Los Angeles, Orlando, San Antonio, and Washington D.C. To register please contact the Seminar Programs Registrar at DTN 249-4949.

## August offerings from Seminar Programs

Employees and customers interested in seminars in networking and software development may select from four Seminar Programs offerings in the Boston area during the last week of August:

Network and Management Control Centers, Aug. 27 - 29

Implementing and Operating LANs, Aug. 27-29

Structured Systems Design, Aug. 27-29

Network Analysis and Design, Aug. 28-29

The first three seminars listed are pilot courses being offered for the first time anywhere.

To register or obtain more information please contact the Seminar Programs Registrar at DTN 249-4949.

## Going to camp with Rainbow 100+s

Orienteering, getting from one point to another by using a compass or reading a map, is not usually thought of as a first step towards learning computer programming. However, Digital employees' children currently enrolled in the Rainbow computer camp in Marlboro, are using computers for precisely that purpose.

Employees' children from sites throughout the Greater Marlboro area are participating in the Rainbow computer camp. They are learning computer applications and literacy, orienteering and life coping skills.

For the computer applications portion of Rainbow computer camp, students work in groups of two to three and are encouraged to use the computer as a tool to solve problems. Each student is required to develop a project based on one of the following themes: organizing a sports team, party, or music concert, or bringing an appropriate project from home or completing a journal. To complete the project, students use SELECT® word processing to create and print out a letter and flyer, MULTIPLAN® spreadsheet to print out a budget, and LIST MANAGER® to create a data base to be merged with a SELECT® letter.

Under the computer literacy division of the program, students learn about the evolution of computers, are introduced to the various uses of computers in society and visit work areas at the Marlboro sites.

Addressing life coping skills, students learn about the similarities and differences between people, clarify values and learn how to interview for a job.

Orienteering gives students an opportunity to improve their knowledge of angles, and understand through planning how components of a project fall into place.

The camp is overseen by three teachers from the French River Teacher Center, who have worked with and teach about computers. They emphasize that since it is a camp environment, they try to make sure the students have fun while learning about computers. Teacher Joan Goodell says, "The computer camp program is geared to the individual students. We have students that will be entering grades 7 to 11. There is something for all of them in the camp presentation, there are all levels of learning depending on the individual student's knowledge and experience with computers."

Having worked with the Rainbow personal computer, Joan has found it "is easily adapted to educational needs. The students at the camp do everything on Rainbows." The Rainbow 100+s and software for the camp were loaned by Digital for the two two-week sessions.

The Rainbow computer camp, being piloted at MRO3, was modeled after Project

50/50, a computer camp program designed by Digital executives and educators from the French River Teacher Center in Oxford, Mass. Project 50/50 is a nationally validated computer camp, which includes 50 percent minority and disadvantaged students and 50 percent regular students. This camp, created to give participants the opportunity to learn about computers, was offered last year and is underway this summer in Oxford.

Bringing the camp on-site was a collabora-

tive effort between Marlboro Facilities and Cluster Services and Community Relations.

To cover costs such as teacher salaries and food provided during the day, Digital employees paid \$225 per child for a two-week period.

SELECT is a trademark of Select Information Systems, Inc.

MULTIPLAN is a trademark of Microsoft, Inc.

LIST MANAGER is a trademark of Peachtree Software, Inc.



Teacher Sean Gibreen instructs Digital employees' children participating in the Rainbow computer camp at MRO3 about orienteering. Below (sitting) Craig Znamierowski, 13, learns how to use a Rainbow 100+ personal computer while (standing) Nikki Thompson, 12, looks at the work he has sent to the printer. Craig's father Stan is a Purchased Material Quality manager at MRO1 and his mother Nancy is a secretary for Corporate Sales in Stow. Nikki's father Wayne is an Office Services coordinator at MRO3 and his mother Pauline is an Inventory controller at MRO1.

