

digital

MAYNARD

# DIGITAL THIS WEEK



Volume 10

Number 6

March 28, 1983

## Manufacturing productivity conference outlines challenges of the future

As markets and products change, Digital's Manufacturing plants will still have the same objective—to manufacture competitive, quality products—but with new challenges and opportunities available from technology.

To understand the direction, tools and goals of the future, Manufacturing Productivity Challenge 83 (MCP83), recently held in Andover, assembled more than 500 of Digital's senior Manufacturing managers and technologists from all over the world to address key technologies needed to achieve major productivity gains.

In opening the conference, Jack Smith, vice president, Manufacturing, said, "While our role in the past was providing service and meeting the demand for product, we now have a different role of making Manufacturing a 'competitive weapon'."

Presentations of papers and videotapes during the three-day conference covered a broad spectrum of tools and technologies ranging from those which are installed and running in Digital plants such as Tempe's Automated Material Handling System to new ideas and concepts emerging from the research laboratory such as machine vision and artificial intelligence.

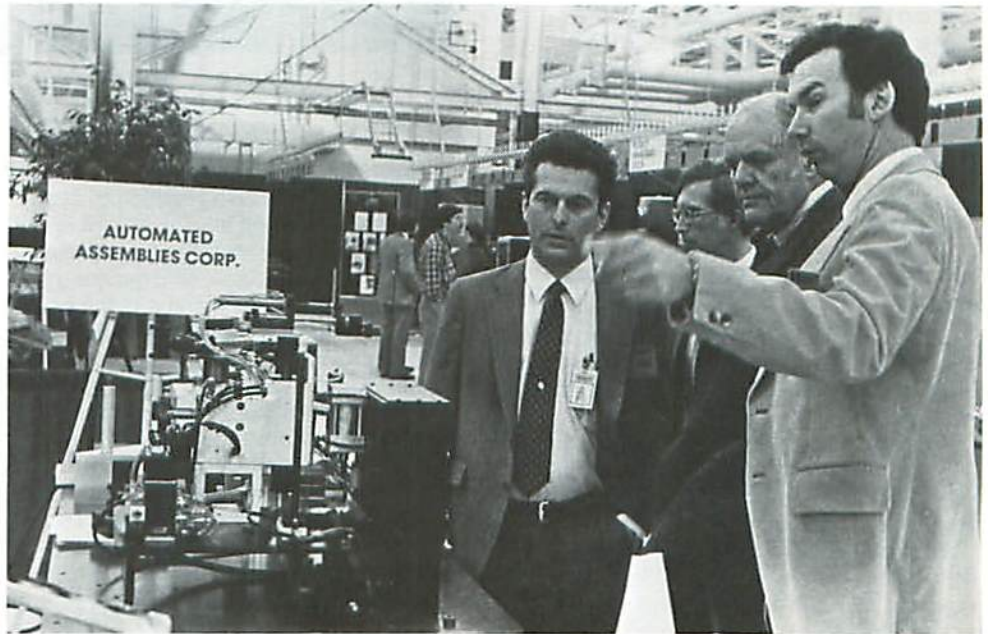
Speakers from Unimation, Stanford Research Institute, Carnegie Mellon University, UMass, University of Rhode Island and Draper Labs along with Digital's own technology experts were at the conference to present various components of the plant of the future.

In his overview, Dick Clayton, vice president, Advanced Technology, described the opportunities technology presents as plants move from an assembly orientation to a process orientation. He also discussed the importance of quality and flexibility and the role of automation and robotics.

Ron Cadieux, MCP83 conference coordinator explained, "The manufacturing productivity challenge of the 80's lies in the effective implementation of the available tools and technologies to create a new Digital, one whose manufacturing resources are strong, flexible, highly productive and ready to meet the future."

Papers by Digital employees awarded

*Continued on page 7.*



Ken Olsen is escorted through the trade show portion of the Manufacturing Productivity Conference by Dick Clayton, (left), vice president, Advanced Technology and Dave Widden, (right), manager of Advanced Technology Manufacturing at Andover and trade show coordinator.

## Professional 325, 350, and LA12 win award at Hannover Fair

Digital's Professional 325, 350 personal computers and the LA12 printer were recently honored with the prestigious 1983 "Good Industrial Design" award which is granted every year by "Die gute Industrieform Hannover e.V.", a world-renowned non-profit organization based in West Germany.

This award is only given to products which will be displayed at the annual Hannover Fair exhibition of international office equipment and data processing technology in West Germany, and for which the owner company submits a request to be considered for the award. Digital was one of over 300 companies from 14 different countries which competed this year in the selection process. This event puts the seal of quality on the three products and confirms the excellence of their design and ease-of-use.

An international, independent jury com-

posed of university and industry experts, judged Digital's products and many others on the basis of practical criteria. The functional and technical design factors are taken into consideration as much as aesthetic and ergonomic aspects. The Professional 325, 350, and LA12 were chosen on the grounds of excellence in ergonomics, work station design, high design quality, great practical use, product safety and practical application.

As recipients of this award, Digital will be able to prominently display the seal of "Good Industrial Design" on the three products which will be featured in a special display at the Hannover Fair honoring products which have demonstrated good industrial design. In addition, our products will be featured in a catalog containing all products which have been given the award with descriptive text and color photographs.

## New program trains employees in artificial intelligence

To position Digital as a leader in artificial intelligence (AI) and expert systems, Manufacturing has begun an intensive training and apprenticeship program to build a base of employees capable of applying these new technologies.

Simply stated, artificial intelligence is the science of making machines do things that would require intelligence if done by people. Expert systems are one of the "problem solving" applications within artificial intelligence. They are computer programs that reflect the specialized knowledge and experience of a human expert in a given discipline.

Currently, there are 17 employees in the training program which began in January and is run in conjunction with Carnegie Mellon University. "It's important for Digital to maintain an environment that is 'friendly' to the new technology and provide tools and knowledge to make sound investment decisions," says Mike Houlihan, manager of Business Application Development and Training for AI.

"We are committed to training employees for jobs of the future and to manage change. As AI emerges more and more in industry, we want Digital to be prepared to take advantage of the new technologies in our processes and with our products," he explains.

There are now less than 100 experts in AI in the country. At the end of this fiscal year, 60 employees will be trained in AI and more in following years.

Bob Falin, Program manager, explains the course is intensive and challenging—packing a lot of information and experiences into a short period of time. "It provides an opportunity to learn and practice necessary technical, interpersonal and business skills. It is important that 'knowledge engineers,' as practitioners are called, select and solve significant business problems in a way that contributes to a positive working environment," Bob explains.



The first class in the artificial intelligence training program meets to discuss their career objectives. Mike Houlihan, (center), manager of Business Applications and Training for AI and Bob Falin, (standing by door), Program manager, lead the discussion.

Phase one of the program consists of 12 weeks of formal training including: AI at Digital; history of AI; an overview of systems and software methodology; software development concepts, programming and application languages; and problems solving and managing change. A module on design characteristics of expert systems will be added in the fall.

In the second phase, participants will begin a ten-month internship at either Carnegie Mellon or within Digital. At Carnegie Mellon the apprentices will work under John McDermott, a recognized leader in expert systems, on projects which are being developed for Digital. At the end of the work study, they will return to Digital and be assigned to the Intelligent Systems Group where they will work for one year. At the end of the project the person will return to their sponsoring line organization.

Candidates for the program are selected by their group staff based on their past performance and ability to succeed. They are then interviewed by an AI program committee. "The field has attracted creative and bright people. A technical background or orientation, a successful performance and a willingness to make a career change are important. It also helps if they are knowledgeable in some base technology area and have experience with product and design technology," Bob explains. The decision to accept a trainee into the program is made jointly by the individual's group staff and the AI committee.

There are currently nine operating groups involved in the program. In addition to expanding this number in the future, training will be available through line organizations. Anyone interested in the program should ask their group manager for more details.

## Technical seminar

### MARLBORO TECHNICAL SEMINAR SERIES

April 1983

**March 31**  
**DEC 10-20 CR - MRO1**  
**3:00 - 4:30 p.m.**

**The Digital Telephone Network**  
Alan Kotok - Digital  
Large VAX Advance Development - MRO1

**April 21**  
**DEC 10-20 CR - MRO1**  
**3:00-4:30 p.m.**

**Digital and the Microelectronics and Computer Technology Corporation**  
Tom Gannon - Digital - Hudson

**April 28**  
**DEC 10-20 CR - MRO1**  
**3:00-4:30 p.m.**

**Quality/Challenge for Systems and Communications**  
Bill (B.J.) Johnson - Digital  
vice president, Systems and Communication Engineering

For additions or deletions contact Susannah Nathan at DTN 231-6301 or Gereda Pruitt at DTN 231-6769.

### DIGITAL THIS WEEK



Editor: Barbara Lovely

Send stories, photos, ideas or suggestions to DTW, CF02-3/K23 or call the editor at DTN 251-1307. Ads must be submitted in writing to Marketplace, CF02-3/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.

## ESG announces cooperative marketing agreement with OIR

Digital's Engineering Systems Group (ESG) recently announced a cooperative marketing agreement with The Organization for Industrial Research, Inc. (OIR), headquartered in Waltham, Mass. This agreement makes available on VAX, a series of Group Technology (GT) software packages which put data to work in manufacturing environments. For the sales organization, the OIR products provide a total CAD/CAM extended engineering program that can help leverage VAX sales. The programs, Multiclass, Multicapp, and Multigroup can be linked to MRP (Material Requirements Planning), ATS (Automated Time Standard), and other CAD/CAM elements, which further serves to integrate all computerized design and manufacturing systems.

All OIR products are available across the VAX family, and are installed ready for use. They are proven systems that reflect OIR's experience in over 100 system installations in a wide variety of data processing environments. The Group Technology packages from The Organization for Industrial Research, Inc. are sold and supported worldwide. This type of dedicated sales and support system has led to the creation of an extensive and knowledgeable user community, which shares ideas, developments and experiences.

## Know your ABCs of computers

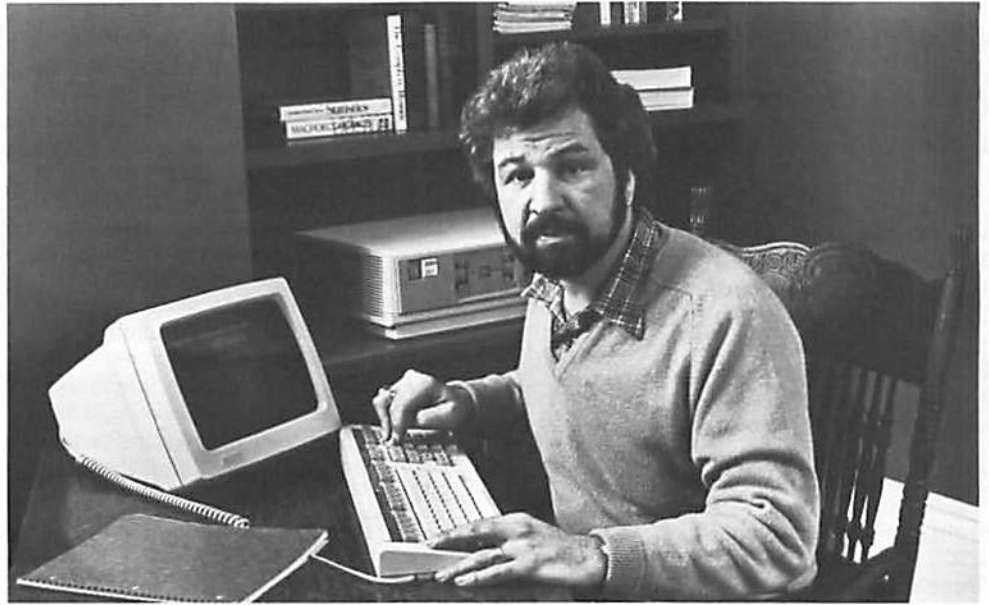
Educational Services offers two courses to help non-technical employees communicate more effectively with the computer professional.

**ABCs of Computers** is a five-day course designed to increase participant's knowledge of basic computer concepts, architecture, and applications. The course will include sections explaining: basic computer building blocks; system components; number systems; language types; and operating systems.

Emphasis will be placed on underlying concepts, terminology, and a survey of available literature and courses in specific areas of interest. Classes begin on the following dates: April 11, April 25, May 9, May 23, June 20, June 27, July 11, August 1, and September 19.

**ABCs of Software** is a five-day course intended for non-technical employees who work in a computer environment and deal with experienced software groups. The course is designed to familiarize the student with the basic concepts and applications of software and includes an overview of several operating systems. The student

## Rainbow brightens decor of PBS's "This Old House"



The Rainbow 100 personal computer is demonstrated by host Bob Vila in the 1982-83 final program of PBS's "This Old House" series. The show can be seen April 7 at 7:30 p.m. on Channel 2.

Digital's Rainbow 100 personal computer debuts in an upcoming segment of "This Old House," a 26-part nationwide public television series that has been showing the step-by-step modernization of an 1850s Greek revival farm house.

The Rainbow is the focal point of the renovated library, where the host of the show, Bob Vila, and Digital Marketing specialist Janice Colombi sit down for a 10-minute, on-air demonstration of Select<sup>®</sup> word processing and other business applications. The season's final episode shows, for the first time, the completed rooms of "This Old House" such as the library, sauna, exercise room, steam shower and media center. The show is scheduled to air in the Boston area on Channel 2 WGBH Thursday, April 7 at 7:30 p.m.; and Saturday, April 9 at 6:30 p.m. Outside the Boston area, "This Old House" will be shown at various times the week of April 2-9. Two-hundred forty seven PBS Stations throughout the U.S. broadcast the Emmy-award winning "This Old House" series.

\*Select is a trademark of Select Information Systems.



Digital's Marketing specialist Janice Colombi gives "This Old House" host Bob Vila a 10-minute word processing lesson.

will learn the terminology applicable to the software on a typical computer system. Topics include: computer applications; review of hardware concepts; programming; the user interface; utility programs; and operating systems.

The course will contain lab exercises utilizing BASIC, system commands, and utility programs. This course builds upon the software component of "ABCs of Computers" which is a prerequisite to enrollment.

Classes begin on the following dates: April 25, May 16, June 6, July 18, September 12, and September 26.

To enroll in ABCs of Computers or ABCs of Software, send a memo to the Employee Registrar, BUO/E29, with your cost center manager's signature, your name, badge number, cost center number, mail stop, DTN extension, course title and date. For further information call DTN 249-4676.

## 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 Maynard

From Lowell, Chelmsford, Westford via 110 and 2A, John Coppinger DCV #48, 223-8363

From Tyngsboro, Lowell, Chelmsford, Westford via Route 27, Charles Wellington DCV #14, 223-3570 (part-timers considered)

From Peabody, Phil Baxter DCV #105, 223-6385

From Leominster, Fitchburg (7:45 to 4:30), Marie Berkio DCV #64, 223-5433

From Shrewsbury, Northboro, Westboro, Vic Hamburger DCV #87, 223-8441  
From Holliston, Milford (K-Mart Plaza), Medway, Bellingham, Mendon, Franklin, Mike Smith DCV #33, 288-6161

From Framingham, Natick area, Thomas Martin DCV #78, 223-4240

From Eggleston Square via Route 9, Tony Santos DCV #81, 223-4725

From Leominster, Fitchburg to the Mill, Dave Farineau DCV #113, 223-9200

#### To Maynard/Littleton

From Amherst, NH, Doug Ryder DCV #29, 229-6243

#### To Maynard/Nagog

From E. Pepperell, Groton, Littleton, Harry Aikens DCV #16, 223-9435

#### To ACO & Nagog

From Framingham - Bowditch Road, Cong. Church, Nobscot Center, Sudbury - Old Lancaster and Fairbanks Road, Maynard Center and Acton (ACO), Marie Cote DCV #38, 288-6058 or Jean Doherty, 288-6441

#### To Marlboro

From Canton, Norwood and Route 95 South via 495, Bruce Seich, 231-5913

#### To Maynard/W. Concord

From Marlboro, Hudson DCV #18, Bob Johnson 223-6733

#### To Maynard/Stow

From Brookline, Brighton, Newton, DCV #98, Terri Dedman, 276-9728

### FORMING VANPOOLS

#### To Maynard/Stow

From South Shore Plaza via Route 128, Houghton Pond, St. Bartholomew's, Needham, Derek White, 276-9071 or Rex Howard, 276-9801

#### To Hudson

From Fitchburg, Leominster, Doug Powers, 225-6255

## Courses from DME

### Managing Across Cultures

Offered in the Maynard area April 13-15, this three day seminar deals with skills for working and managing in Digital's multinational settings. It is designed to increase participants' knowledge in cross-cultural interaction, communication and negotiation. By gaining a better understanding of the effects of culture on values, attitudes, business and social customs, subsequent work interactions will be more productive. A major goal of this workshop is to understand practices which facilitate as well as block intercultural communication. The intended audience includes employees who manage or work with people/operations in other countries or who travel abroad frequently on business. For registration information, contact the registrar, DTN 249-1882.

### English as a Second Language

Scheduled to begin April 4, this course is designed to assist those employees whose native language is other than English. During the first class meeting, participants will be individually assessed. Levels and course of study will then be determined with attention given to both written and oral skills. With a better command of written and conversational skills, employees will become more confident, resulting in more productive work systems. For more information, call the course registrar, DTN 249-1882.

### Upcoming Courses

Communication Skills for Solving Business Problems - April 11-13 - BUO  
Key Financial Concepts - March 30 and 31 - BUO. April 4 and 11 - BUO  
Presentation Skills - April 20-21 - BUO  
Managing Performance - April 20-22 - BUO

Project Management - April 27-28 - BYO  
Skills Assessment - April 5,12,19,16 - BUO

For more information, call the course registrar, DTN 249-1882.

## External Research sponsors workshop

Digital External Research Program is sponsoring a Database and Language Research Workshop on April 27, 28 and 29. Representatives from universities with whom Digital collaborates on research projects will be present as well as reps from universities potentially interested in related research. This workshop will give the universities the opportunity to meet with members of Digital's R&D and Engineering groups to learn about research objectives, as well as how the universities can contribute and be supported in their objectives.

## TSS Technical Seminar

Hall of the White Mists  
Hudson, Massachusetts

### TENTATIVE SCHEDULE

#### April 4 - 10 a.m.

Don Lewine - Digital  
*Microvax*

#### April 7 - 10 a.m.

Herb Sawin - MIT  
*Anisotropic Plasma Etching on Poly Silicon Using C12*

#### April 11 - 10 a.m.

Akis Doganis - Stanford University  
*Optimal Extraction IC Device Model Parameters*

#### April 13 - 10 a.m.

Sanjay Mittal  
Xerox PARC  
*Expert Systems for VLSI Design*

#### April 13 - 2 p.m.

Robert Hisrick - Boston College  
*Early Orientation of Marketing in the Research and Development Process*

#### April 14 - 10 a.m.

Arnie Reisman - MCNC  
*The Effects of Pressure, Temperature and Time on the Annealing of Ionizing Radiation Induced Insulator Damage in N-Channel IGFET's*

#### April 15 - 10 a.m.

Tom Gannon - Digital  
*Digital and the Microelectronics and Computer Technology Corporation*

#### April 21 - 10 a.m.

Charles Sodini - MIT  
*The Effect of Thin Gate Dielectrics on Scaling MOS Devices*

#### April 21 - 3 p.m.

Lewis Pereira - University of Lisbon  
*Knowledge Based Systems in PROLOG*

#### April 22 - 10 a.m.

N. Sakakibara - MIT Sloan School  
*A Case Study of the Japanese Semiconductor Project*

#### April 27 - 2 p.m.

Leigh Saperro, Ron Maxwell - Digital  
*Conversion and Synthesis of IC's Experience and Results (Two Hours)*

#### April 28 - 10 a.m.

A. Shamir - Weizmann Institute  
*Recent Trends in Cryptography*

#### April 29 - 10 a.m.

Bill Fletcher - Design Analysis Assoc. Inc.  
*Design and Management Methods Used for the Development of the RD, RX (Wincl./Floppy) Controller*

For updated information and mailstop changes call Judy Hunt DTN 255-4071



## NEWS BRIEFS

### Deadlines for "Digital This Week"

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

- April 11 issue - March 31 deadline
- April 25 issue - April 14 deadline
- May 16 issue - May 5 deadline
- May 30 issue - May 19 deadline

### Digital's EAP program on TV

A feature on Digital's Employee Assistance Program is tentatively scheduled for the Sunday, April 3 broadcast of "Coming Together" on WBZ-TV Channel 4, at 7:30 p.m. The show was taped in Digital's Boston Plant.

### SPEAKEASIES hold contest

Employees are invited to attend the Toastmasters International SPEAKEASIES annual Speech contest on Wed., March 30 from 12 noon to 1:00 p.m. in the Nashoba and Assabet Room at the Powdermill Road facility.

This year's speech contest is a "Serious Speech." The winner will go to the Area Level competition in early April.

### Maynard High seeks licensed operator

Maynard High School's radio station WAVM is seeking a Federal Commission Class I licensed operator to serve as the station's chief engineer on a volunteer basis. Volunteers should be able to trouble-shoot radio equipment problems. For more information, contact Joe Magno on 897-5213 in the day or evening.

### Summer bowling begins

Applications are now being accepted for the Digital Summer Candlepin Bowling League. The league meets on Tuesday nights from 5:30 to 7:30 p.m. at Kelly's Lanes in Maynard. League dues are \$3.00 per week. The league schedule is: May 31, establish average night; June 7 to July 12, first half; July 19 to August 13, second half; and rollofs on August 30.

Anyone interested in joining the league should contact Lou Cesario in Stow, DTN 876-9285.

### METPAY closed for Patriot's Day

All Metpay offices in the New England area will be closed April 18 for the Patriot's Day holiday observed in Massachusetts.

### On the move

As of April 4, all correspondence for **Tuition Administration** should be addressed to PKO3-2/F12. The DTN for Kay McCullough, Tuition administrator, will remain 223-7543.

Corporate Revenue Accounting is now known as **U.S. Area Revenue Accounting** and is located at Parker Street, PKO3-2/K86.

### 1983 Guide to Engineering available

The *1983 Guide to Engineering at Digital* is now available. It contains facts about Digital, its philosophy, "culture," a list of acronyms, and a name and subject index. Chapters include how projects are funded, an overview of the Phase Review Process, legal guidelines for engineers, and information services available at Digital.

The manual also contains organizational descriptions of Engineering, Manufacturing, Product Groups and Field Operations Groups and tells where to get more information.

To order a copy contact Digital Standards Administration, MLO3-2/E56, DTN 223-9475.

### Learn to buy the right bike

The Digital Bicycle Club will hold its next meeting on Tues., April 5 at 7:00 pm. in the HLO2 (Hudson) Mt. Washington Room. A representative from Gamache's Cycle in Fitchburg will demonstrate what to look for and pay when you're buying a new bike. Refreshments will be served.

For more information or to bring a non-Digital person, please call Kathy Norton, DTN 234-4541.

### Fiscal year calendars available

Fiscal year 84 calendars are now available in all stationery supply rooms. If for some reason they are not available, contact Northboro, DTN 234-4343.

### Computer Club answers VT180 questions

The Computer Club invites employees to submit questions about the VT180 to Benjamin White, VR03-3/C8. Benjamin will answer them in a "Round Robin" forum at the next Computer Club meeting on April 6 from 6:00 to 7:30 p.m. in the Mill Cafeteria Conference Room (ML05-4).

A business meeting will follow for employees interested in planning future activities. For more information contact Alex Aderer, DTN 223-4203.

## Inplant Travel helps plan cost effective trips

The Parker Street Travel Office, staffed by Digital employees, is responsible for the business travel needs of employees in the Greater Maynard area. Because of the opportunities evolving from airline deregulation, the travel office became an "inplant" branch of Crimson Travel in October 1981.

As an inplant office, the majority of commissions paid to Crimson Travel for air, auto and hotel arrangements made by the Parker Street Travel staff are reimbursed to Digital. These commissions defray many of the overhead expenses of running the group. When travel arrangements are purchased outside of the inplant travel service, commissions generated by these arrangements are paid to other travel agents. "Loss of these commissions affect the ability of the Travel Office to operate at little or no cost to the company," explains Beebe Meyer, Inplant Travel manager.

The office operates like any other commercial travel agency. It is connected to the American Airlines Sabre Reservation System and the Agency Data System which provides a variety of management reports. Arrangements for airplane, automobile and hotel reservations are made for Digital employees, customers, vendors and applicants with particular emphasis placed on special airfares and Corporate Programs.

Tickets, itineraries, seat assignments, boarding passes on American and United Airlines, one-time car rental vouchers, hotel and car rental confirmation numbers and hotel deposits are issued from the office.

"We try to suggest ways for employees to plan the most cost effective itineraries. If we are aware of a lower fare that might mean a different departure time or a different carrier, we suggest it to the passenger. Often, with a change of itinerary, hundreds of dollars can be saved. In the last four months, more than \$200,000 was saved through the use of airline promotions alone," says Beebe.

The Aviation Services reservation department is also a part of the Parker Street Travel Office. This staff is responsible for making reservations on the company's scheduled helicopter and airplane services. Eventually, the Sabre Reservation System will be enhanced to make it possible to book commercial flights and company helicopters and planes on the same video terminal. This "one stop" travel feature should be available in the spring.

To make travel arrangements through the Parker Street Travel Office call DTN 223-3052. Specific locations serviced by the Inplant Travel office are: ACO, HNO, BGO, BOO, LJO, MLO, MSO, PKO, OGO, GO and USO.



**The Marketplace** is a free service for employees in Massachusetts facilities. DTW deadlines don't pertain to Marketplace, which is first come-first served. Backlog ads are saved for future issues. To place an ad, write a short description including category and price if possible. In order to be published you must include your full name, full DTW, and full location code. Your ad will be returned if you forget this information. You may submit only one ad per issue but you may advertise more than one item if it fits in the 45 character space allotted per ad. Mail ads to **Marketplace, CFO2-3/K23.**

## APPLIANCES

GAS STOVE, 30", 4 burners, oven broiler, turq, B/O, Greg, 284-3045

GAS DRYER, GE, exc cond, \$175 or B/O, Rajan, 288-6459

REFRIGERATOR, Westinghouse, frost free, 15 cu ft, 8 mos old, \$380 or B/O, Isabellie, 281-5746

## CARS

'78 EL CAMINO, PS, PB, AC, stereo, rust proof, HD susp, V8, 34K mi, \$5000, Dan, 223-3126

'76 PLYMOUTH VOLARE PREMIER, slant 6, AM/FM, clean, 1 owner, well-serviced, \$1500, Ray, 276-9655

PLYMOUTH RELIANT K WAGON, 4 spd, 45K mi, 5 new radials, exc cond, B/O over \$5000, Yolinda, 223-4486

'76 TOYOTA PICKUP, cap, lo mi, AM/FM radio, std trans, gd cond, \$3000, Donna, 276-9099

'73 MERCURY MARQUIS, AC, PS, PB, AM/FM 8 track, runs good, \$500 or B/O, Michelle, 234-4234

'82 MUSTANG GL, 1k new, t-roof, PS/PB, many extras, auto, 13K mi, 5 yr/50K warr, \$6900, Phil, 223-5739

'81 DODGE ARIES, 18K mi, AM/FM stereo, PS, PB, front wheel dr, ex cond, \$4995, Fran, 279-5236

'80 VW RABBIT, 4 dr, sunroof, 4 spd, 48K mi, AM/FM cass, 1 owner, \$5000 or B/O, Debbie, 276-9934

'73 CHEVY SUBURBAN, 4 whl drv, locking hubs, plow, AM/FM radio, \$3100 or B/O, Dottie, 225-4558

'71 ALFA ROMEO SPIDER, conv, fuel inj, 5 spd, 80K mi, gd cond, \$2900, Paul, 232-2222

'75 NOVA, 4 dr, 6 cyl, 67K mi, AC, auto, PS, PB, AM/FM, exc cond, \$1950 or B/O, Walter, 269-2240

'81 GRAND PRIX, PS, PW, AC, cruise control, AM/FM, 4 new radials, \$6650 or B/O, Barbara, 223-5539

'80 Z/28 CAMARO, auto, PS, PB, PW, AC, cruise control, t-roof, 30K mi, \$7000 or B/O, Barry, 289-1411

'81 HONDA ACCORD, 4 dr, PS, PB, AC, AM/FM stereo, 5 spd, Rusty Jones, 37K mi, B/O, Diane, 274-6754

'80 FORD FIESTA, 4 spd, 4 cyl, AM/FM, rust prf, 40K mi, exc cond, \$3500, Cindy, 288-6502

'81 FORD ESCORT GL WAGON, 4 spd, AC, AM/FM stereo, roof rack, 32K mi, \$5900, Franc, 275-6180

## FURNITURE

COUCH & CHAIR, overstfd, tweed, cream, green, rust, brown, \$250, Andrea, 231-7859

LOVESEAT & CHAIR, \$100, coffee table & end table, \$60, gd cond, Beverly, 231-4192

WATERBED, king, 6 drw base, cannonball frame, \$600, dresser avail, Mary, 249-4621

PINE DINING SET, 6' trestle tbl, 2 benches, 2 capt chairs, triple hutch, \$600, Donna, 276-9099

KITCHEN SET, 30" round tbl, 4 swivel chairs, yellow/white, \$69, Rich, 223-6090

## MISCELLANEOUS

HEATH HW-8 TRANCEIVER, PS, phones, partially assem by skilled tech, \$200, Greg, 247-3202

COLOR TV, Admiral, 19", \$50, 231-2312

TURNTABLE, Dual 510, semi-auto, base, cover, cart-ridge, exc cond, \$85, Steve, 231-5849

YAMAHA ORGAN, model 115, rhythm section, footpds, bench, more, \$600, Tom, 247-3168

TRS 80 MODEL I COMPUTER SYS, full memory, line prntr, 2 disk, modem, \$2200 or B/O, Frank, 247-2653

LOWREY ORGAN, lg size, dbl keyboards, exc cond, \$900, Barbara, 223-4225

CLASSICAL GUITAR, 6 strings, gd cond, gd for beginner, \$50, Denise, 265-1505

LOWREY ORGAN, Holiday, TGO-1, 2 keybds, 13 pds, 16 rhythms, pecan, \$2500, Jane, 223-6493

MAN'S LEATHER SPORT COAT, gold color, sz 46, \$65, Suzan, 223-5584

VIOLINS, 1/4; 1/2; 3/4 w/bow & case, very nice tone, \$175 ea, Barbara, 223-4564

HONEYWELL PENTAX CAMERA, SP500, 35mm, leather case, 2x converter, \$75, Doug, 269-2101

TURNTABLE, Lafayette, belt drive, semi, Pickering cartridge, \$40, John, 225-6281

VIOLIN, bow & case, full size, new strings & bridge, bow nbs re-hairing, German, \$200, Felix, 249-4713

BIC 960 TURNTABLE, belt drive auto, w/Shure cart, exc cond, \$80, Jerry, 231-4632

SWIMMING POOL, Doughboy, 4' x 15' round, ladder, filter, complete, \$250, Louise, 283-7485

FIREPLACE HEAT SHIELD, hvy gauge metal, fits opening 26 1/2" x 38", exc cond, John, 276-9006

CORDLESS ELECTRIC DRILL, recharges in 4 hrs, was \$40 new, asking \$25, Jim, 276-9554

STERLING SILVERWARE, 4 4-pc place settings, Esprit Gorham, brand new, \$1200, Sharon, 232-2218

BOOT SKATES, girls, size 2 1/2, gd cond, \$12, Mark, 223-3100

## MOTORCYCLES

'78 SUZUKI GS-750E, 10K mi, bar, mags, cobra alarm, black, needs no work, \$1650, Phil, 221-5323

'78 YAMAHA 650, king & queen seat, backrest, luggage rack, Conti tires, \$1700 or B/O, Kevin, 234-5090

'77 YAMAHA, 650 twin, lo mi, gd cond, maroon, \$800 or B/O, Phyllis, 248-4136

'75 HONDA 550, exc cond, loaded with extras, lo mi, \$995, Ken, 245-5275

'79 KAWASAKI KD175, Enduro, used 1 season, off road only, gd starter bike, \$550, Ken, 236-2542

## PETS

SHIH-TZU PUPS, home raised, AKC reg, vet checkup & shots, avail mid-March, \$300, Larry, 231-4457

GERMAN SHEPHERD PUPS, champ lines, AKC reg, huge dark pups, \$295 up, Diane, 231-5950

REG STD BRED COLT, 8 mos, halter broke, handsome, \$2000, Donna, 278-4004

BORDER COLLIE PUPS, purebred, shots, reg working parents blk/wht, ready 4/1, \$160, Heidi, 276-9077

MONGREL PUPPIES, 5 wks old, free, Clarence, 234-4235

## REAL ESTATE

NASHUA, NH, 3 br split, fam rm, hwd flrs, deck, garage, 2.5 mi to ZK, \$65.9K, Richard, 247-2708

WELLESLEY, 4 br Victorian, 2 car gar, 1 1/2 bath, access to public trans, \$155K, Morrison, 234-4641

CONTEMP HOUSE, 9 yr old, 3 br, frplce, w/w carp, wood stove in base, upper 40's, Al, 223-8083

LAND, 1.1 acre, Conway, NH, priv road along Saco, elec & water, ready to build, \$7.5K, Jim, 236-2797

CONDO, Worcester, 2 br, eat-in kit, lvr/dr combo, appl inc, sunny, priv, \$57.9K, Beth, 249-4622

## RECREATIONAL VEHICLES

SAILBOAT, Venture cutter, 23', 6hp outboard, trail custom deck layout, extras, \$8500, Donald, 289-1129

SAILBOAT, MKE, never used, ABS hull, your choice of sail size, 35 lbs, \$625, John, 292-2142

SAILBOAT, 12' AMC Puffer, fiberglass, main, jib, vests & cushions for 5, \$1200, Will, 276-9708

OPEN ROAD CAMPER, pickup, sleeps 4, furnace, icebox, self cond, exc cond, \$1500, Sandi, 225-4631

## RENTALS

NO ANDOVER, townhouse, 2 br, 1 1/2 bath, pool, cellar, patio, \$575/mo inc heat & hw, Don, 247-2440

BOSTON, Back Bay, 10th flr penthouse studio, \$550/mo inc heat & hw, George, 225-5790

LAKEFRONT COTTAGE, Bridgton, ME, 3 br, deck, prv beach fishing, Jun-Sep, \$300/wk, Geoff, 223-3843

APT, Central St, S. Acton, 2 br, carpeted, inc heat & hw, \$420/mo, Jeffrey, 223-6831

CHATHAM, CAPE COD, 3 br, 2 bath, sleeps 8, near beach, new, \$575/wk Jul-Aug, off seas avail, John, 283-6300

MARTHA'S VINEYARD, year round house, 5 rm, carpeted, 1 1/2 mi to priv beach, David, 234-4201

MARLBORO CONDO, rent/buy, 2 br, avail 4/1, AC, micro, pool, tennis, clean, \$425/mo + util, Dan, 223-2643

LAKEFRONT COTTAGE, Hillsboro, NH, sleeps 4, fully equip, \$200/wk, off seas avail also, Sue, 231-6147

SUMMER RENTAL, N. Conway townhse, 3 br, pool, tennis, W/D, DW, Jacuzzi, weekly, Bruce, 288-6101

MARTHA'S VINEYARD, new home, near So. Beach, Edgartown, \$400-900/wk, Elaine, 234-5213

FALMOUTH, CAPE COD, new, waterfront, sleeps 7, lg deck, master suite, July-Aug, \$600/wk, Jan, 292-2319

## ROOMMATES

HOUSEMATE, M/F, share 3 br ranch, Westminster, priv bath, \$250/mo inc util, Janet, 234-4963

HOUSEMATE, M/F, non-smoker, share 4 br house, Boylston, pool, \$200/mo, Lori-Jeane, 351-4964

ROOMMATE, F, non-smoker, share 3 br house, Nashua, \$250/mo & 1/3 util, Emilie, 381-1075

ROOMMATE WANTED, share 7 rm house, Lancaster, 2 rms to yourself, \$250/mo, Diane, 288-6059

HOUSEMATE(S) WANTED, woman or couple, non-smoker, like cats, \$250/mo inc util, Carole, 288-6176

## SPORTING GOODS

'81 HOBBIE SP EDITION, Carumba, many extras, w/galvan trailer, fresh water use, \$3600, Randall, 231-4801

SKIS, Rossingnol ST 650, 195 cm, Look G.P. bindings, vry gd cond, \$60 or B/O, Jim, 289-1314

SCUBA EQUIP, tank, weight belt, BC, knife, boot, back pack, press gauge, compass, more, \$575, Kevin, 234-4399

BICYCLE, 10-spd, 19" men's frame, drop handles, blue, well cared for, \$125, Barbara, 223-3001

## WANTED

MINI-BIKE, 4 or 5hp, knobby tires, fork suspension, prefer Rupp, gd running cond, Christine, 251-1303

EXTENSION LADDER, aluminum preferred, wood OK, Mike, 231-7245

PIANO, in repairable cond, will haul, reasonably priced, Steve, 276-9336

HOUSE TO RENT, at least 7 br, start Aug/Sep, in Cambridge, Somerville area, Tom, 229-6332

TOYS, Fisher-Price dwellings, creative toys, etc, gd cond, reasonable, Dick, 223-8200

CHARTER, 30' sailboat for NE coast cruising, flexible time & loc, Chuck, 288-6967

ROBIN PERSONAL COMPUTER, Kathie, 223-6041



## Advanced manufacturing technologies demonstrated at trade show



One of many speakers during the three-day conference, David Nitzen, director of the Robotic Research Group at Stanford Research Institute, described SRI's progress in programmable automation research which Digital supports.

### Productivity Conference...

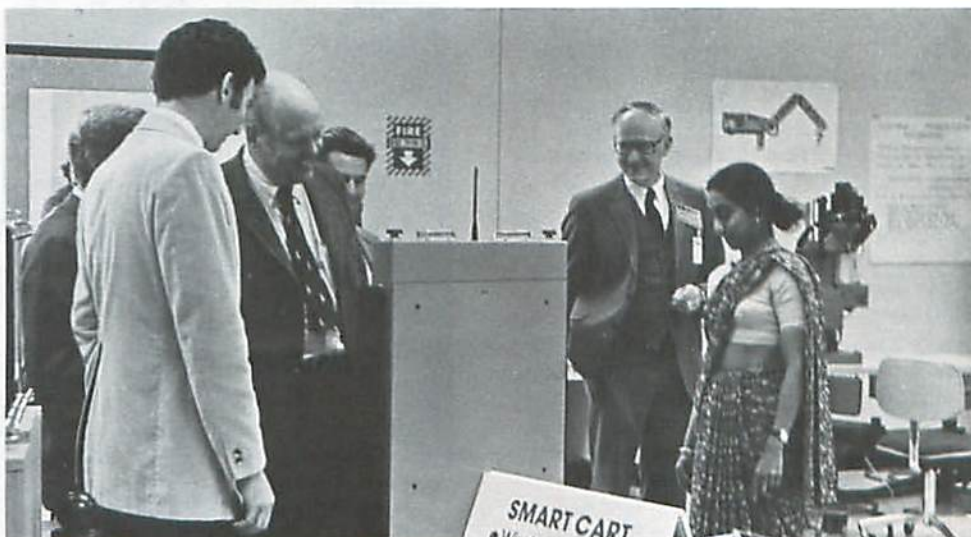
*continued from page 1.*

best of the conference were: "Cost of Quality," by Edmundo Martinez, Quality manager for Westfield and "SPEED®: A Simulation Tool to Increase Progressive Assembly Line Productivity," by Larry J. Reboulet and Irving J. Winters of the Springfield Plant. For papers submitted by people outside of Digital, C. Poli, Professor of Mechanical Engineering, UMass, was awarded best paper for "DEC's Disk and Tape Drives and Their Ease of Assembly." They will all receive Professional 350 personal computers for use in their work.

Concurrent with the conference was trade show at Digital's Andover facility open to all employees. More than 20 in-house and vendor displays highlighted equipment available or in use at Digital in robotics, automated assembly and materials handling, machine vision and automatic assembly.

More than a score of video tapes were produced and collected for the conference. One tape of particular interest to all employees is "Visions of a Winner," which presents a vision of Digital manufacturing in 1987 using technology and processes that are available today. The conference proceedings were videotaped and are available for rental through Pat Grieve, in the Acton Plant Training Center, ACO/B70, DTN 232-2486.

The conference was sponsored by Digital's Advanced Technology Group and the Design/Manufacturing Automation Steering Group.



Giving Ken Olsen a little tap to clear the route is the Smart Cart, Bell & Howell's chemical guide path, radio linked cart for material delivery to work stations or cells. Dave Widden, (left to right), Ron Cadieux, Dick Clayton and Arun Sankar look on.



Bill Smith, MIS Data Systems manager, describes SPICES to Bill Gray. SPICES is Springfield Process Information and Evaluation System, an on-line data collection system for Springfield's manufacturing operation.



Ron Cadieux, (left), conference coordinator, examines a Microbo robot with Charlie Vaillant, (right), of Storage Systems Advanced Manufacturing Technology Group. The Swiss-made Microbo robot and a Seiko pick and place do the assembly portion of a read/write head.

## Two run Boston Marathon for hunger

Every year on Patriot's Day, thousands of runners gather at the village green in Hopkinton to run the Boston Marathon. This year, a number of Digital employees will try to complete the 26 mile 385 yard course; two will run for more than just the finish line.

George Roth and Peter Kaplan are members of World Runners--an international running club whose purpose is to focus attention on and generate support for ending hunger and starvation in the world. Since its inception in 1978, the club has raised almost \$2 million for hunger organizations through sponsorship pledges.

If you have a hunger organization you would like to pledge your support to, or if you're a runner and want to learn more about World Runners, contact Peter Kaplan, DTN 231-2349 or George Roth, DTN 225-5410.

## TICKET SALES

### Wachusett Mountain

Digital employees may ski Wachusett Mountain at a 50 percent discount off rental, lifts and lessons on Saturday, April 2. To receive the discount, employees should show their badges at the Ski School Desk. In the event of inclement weather call (617) 464-2355 to inquire on conditions. Wachusett Mountain is located on Mountain Road in Princeton, Mass.

### Digital night at the Shriner's Circus

The Sunday, May 1 performance of the Shriner's Circus will be exclusively for Digital employees, their families and friends. In addition, employees and their families will be asked to join the grand entrance opening of the circus. Tickets which normally cost \$5.00 will be available to employees for \$3.00 per person. The circus is at the Shriner's Auditorium in Wilmington.

## Boston Business Center dons new sign



Admiring their new sign as they change from the Digital Store to the Digital Business Center are the Boston Business Center staff: (from left to right), Denton Hunter, Rob Aston, Business Center manager, Margaret Aust, Hugo Santamaria and Arlene Levin.

## More than \$2 million donated to United Way

Contributions from employees to Digital's annual United Way campaign equalled \$1,055,000 donated by 53 percent of Digital employees. This is the first time more than \$1 million was contributed. Digital's corporate gift matches the \$1 million donated by employees bringing the total to just over \$2 million. 325 United Way offices across the United States were designated as recipients by employees.

Leading with the highest number of employees participating in the campaign were: the Boston Plant and Enfield, Conn., each with 100 percent participation. Salem Field Service Logistics in New Hampshire followed with 98.9 percent participation. Woburn, Natick, Mill Manufacturing, Greenville, SC, and Augusta, Maine all had over 80 percent participation. And Southboro, Littleton, Franklin, Burlington, West-

field and Billerica had over 70 percent participation.

"Digital employees are to be commended for their generosity during this time of economic difficulty," said Donna Spencer of Corporate Contributions. "Our contributions will provide numerous services for individuals less fortunate than us," she said.

## Seminar examines services for the elderly

The Greater Maynard Area Employee Assistance Program is sponsoring a lunch time seminar on resources available to older people and their families and how these organizations relate to one another.

According to Terry Dolan, "Frequently families and older people are not sure of the type of assistance they need, what is available and when to begin to look for help." Another person will discuss the emotional aspects of aging. Attendees will have a chance to ask questions and material will be available to take home. The seminars will take place from 11:45 to 12:45 p.m. Feel free to bring your lunch.

**April 4 OGO**  
Stow Conference Room  
**April 6 MSO**  
Nashoba/Assabet Rooms  
**April 13 LMO**  
Ethernet Conference Room  
**April 14 HLO2**  
Mt. Washington Room  
**April 19 ACO**  
Process Engineering Room  
**April 20 PKO3**  
Corporate Auditorium  
**April 21 MLO5**  
Cafeteria Conference Room

### CLIP AND SEND

Use a separate form for each event. (Make photocopies, if necessary).

Event \_\_\_\_\_ Date of Event \_\_\_\_\_

I understand that if the allotment of tickets has been sold out, my money will be refunded. I have enclosed a stamped, self-addressed envelope with my home address.

Number of Tickets \_\_\_\_\_ Check enclosed for \$ \_\_\_\_\_

Name \_\_\_\_\_

Mailstop \_\_\_\_\_ Badge No. \_\_\_\_\_ DTN \_\_\_\_\_

Home Address \_\_\_\_\_

State and ZIP Code \_\_\_\_\_

Make check payable to DEC Recreation Association and forward with this coupon to: DEC Recreation Association, PO Box 310, Maynard, MA 01754.