ON LINE

Digital Sells 1,000 PDP-8 Computers

Digital's one thousandth PDP-8 computer has been sold to Teradyne, Inc. of Boston. The PDP-8 is part of Teradyne's J 259 electronic circuit testing system, shown on this month's ON LINE cover. The J 259 is a highly versatile DC measurement system, used for testing multi-terminal electronic circuits, such as integrated and hybrid circuits, discrete component modules, and many other devices.

The system shown on ON LINE's cover has been sold to Sprague Electric Company. Sprague will use it to test integrated circuits which will, in turn, be sold to Digital, as well as other computer manufacturers.

The advantages of using the PDP-8 in this application are that it is faster, provides more reliable testing, allows simplification of data processing, facilitates change or expansion of functions, and permits the operator to supply input in a "near-English" form.

This is only one of the many applications which have contributed to the overall success of the PDP-8. As the first full scale computer at its price, the PDP-8 received almost immediate acceptance, opening new markets which expanded the Company's traditional scientific computer market. Today, the PDP-8 Computer boasts nearly 1,000 installations around the world. One of the most popular computers ever offered, it is a high speed general purpose machine designed for scientific, engineering, and process control applications. The "8" supplies such markets as physics, oceanography, typesetting, university research, education, and industry (Teradyne's application).

PDP-8 in Physics

The impact of small computers on the physics laboratory in the past few years has been enormous. Working with a PDP-8 in the physics lab enables scientists to observe data as it emerges, and analyze and alter it while the experiment is still in process. This gives the scientist invaluable flexibility. Battelle Northwest uses an "8" to store and analyze time-of-flight data and other experimental analysis functions. Many universities analyze nuclear materials with the help of the PDP-8.

Oceanography

PDP-8's are being used in oceanography as aides to navigation, as well as guides for measurement of depth and foreign substances. Coastal charts that show bottom topography and specific soundings are constructed from information collected through the computer. A PDP-8 on the "Whiting" is charting the waters of Long Island Sound, a project being conducted by the U.S. Coast & Geodetic Survey.

The Typesetting 8

PDP-8 Typesetting Systems are already used by 55 newspapers for fast, economical justification of type. They enjoy more editorial space (with consistent lines) with more time to get the news. The Worcester Telegram and Gazette is a progressive daily paper which utilizes our PDP-8 system for typesetting.

University Research

Wide university use of our PDP-8's provides additional support for Digital's commitment to education. Both research and teaching benefit from these systems, ranging in uses from psychological and physiological studies at Stanford, to research of human performance and decision making at M.I.T. Harvard Medical School is performing experiments in neurophysiology and cardiology, while the University of Iowa uses an "8" to control experiments on the electrical activity of the brain. The applications in research and experimentation by universities using the PDP-8 are both diversified and meaningful to man's future knowledge.

PDP-8 in Education

An ambitious, highly accelerated teaching program, built around a PDP-8, is now being conducted at the Pomfret (Conn.) School to furnish every boy in a 215-member student body with a basic knowledge of computer operation and programming. Assignments given in the math and science courses are now expected to be done on the computer, which, according to the boys, has become "almost as important as football."

Industrial Applications

PDP-8's are used in industry for quality control, data logging, manufacturing original equipment, and many assorted applications, such as that of Teradyne's. Here at DEC, our own PDP-8's test the strates which we use in modules. Resistors are tested and diodes checked for voltage- all by computer. Digital uses many of its own computers for quality control testing of equipment.

Throughout the world, these one thousand PDP-8's are advancing man's present knowledge and providing new ways of improving our lives.
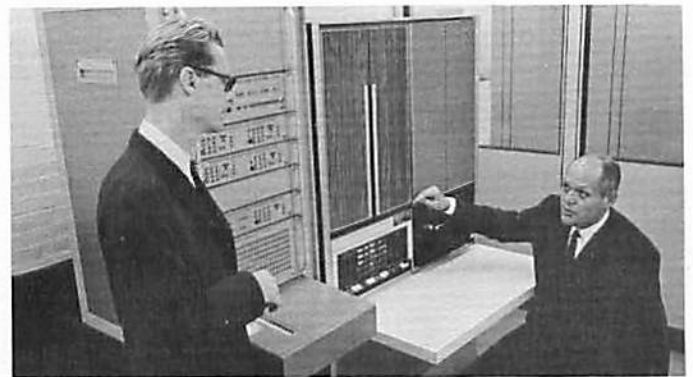
Number 1,000 Presented -- Digital President, Ken Olsen (R) makes the formal presentation of our one thousandth PDP-8 to Teradyne's President, Nicholas DeWolf (L). The PDP-8 is being used as part of Teradyne's new electronic circuit testing system.

Marketing Committee discussion on DECUS -- From left to right: Bob Lane, Allen Kluchman, Bob Collings, John Jones, Dave Cotton.

Presentation of New Plan -- Howie Painter, PDP-8 Marketing Manager, outlines his latest marketing plans to the Committee. Seated at right is Bob Lane, Manager of Large Computer Marketing.

Marketing Receives Greater Emphasis

A newly formed group at Digital, the Marketing Committee, has been named to bring together the Marketing Managers of all Product Lines. The purpose of a marketing committee, as it applies to DEC, is twofold. It attempts to determine the needs of various market areas to improve planning of products, and it provides our sales force with support in the form of promotion, technical information, sales training, and application packages.

Contributions to future business will result from formal investigations of new applications for our equipment. Areas being explored include new types of customers who haven't previously used DEC equipment, and new applications within the markets which we currently serve. An equally important contribution will be made possible through improving the efficiency of our marketing/sales force interface. New communication, support, terms, and conditions can all build the effectiveness of our sales presentations.

Frequent meetings provide a forum for coordinating diverse marketing plans from various Product Lines. With the pooling of our full marketing resources, individual Product Lines can benefit from a wide range of ideas and abilities.

The Committee usually meets every other Tuesday morning in the PDP-9 Conference Room. Members include Dave Cotton, Al Devault, John Jones, Allen Kluchman, Bill Landis, Bob Lane, Jack MacKeen, Howie Painter, Mort Ruderman, and Ron Smart, Secretary. Others attend the meetings when agenda items are relevant to their work. Currently the Committee Chairman is John Jones, but chairmanship rotates among the members, changing every six months.

Bob Savell Named PDP-10 Product Manager

The appointment of Bob Savell to PDP-10 Product Manager brings to this very responsible position a wealth of experience in product development, engineering, and management.

Most recently, Bob has been PDP-10 Engineering Manager: He currently serves as Chairman of the Engineering Committee. After joining Digital in 1961, he became Manager of Peripheral Equipment, and later assumed responsibility for a large part of the PDP-6 hardware development, and design of the related peripheral devices.

He holds a B.S.E.E. degree from Northeastern University, where he graduated Magna Cum Laude. Before joining Digital, he participated in the development of TX-2 at Lincoln Laboratory. This was the first large scale, all transistor digital computer.

He and his wife, Helene, live in Natick with their three children: Cynthia, 14; Diane, 12; and Kathleen, 11.

George Rice Assumes New PDP-8 Post

George L. Rice was recently named Manager of Product Planning for DEC's PDP-8 Marketing Group. George will be responsible for studying new markets for PDP-8 application, including peripherals and all new products. He will also establish calculations concerning what Digital should produce in the next 1-5 years, thus contributing directly to our future efforts.

George spent four years with Digital as our Northeast Sales Manager. He holds a B.E.E. degree from Renselaer Polytechnic Institute, and is a member of the Institute of Electronic and Electrical Engineers and the Instrument Society of America.

He and his wife, Linda, reside in Weston with their three children.

Digital Ad Comes To Life At WESCON

by John Urbanek
Cow Palace Direct Wire

SAN FRANCISCO. – It was a gag ad.

Digital Equipment Corp. ran it in Electronic News showing the PDP-8/S computer in a supermarket shopping cart. They wanted to show the compactness and at the same time emphasize that it was available off the shelf.

The gag turned real when Wayne Pickette, president and chief engineer of Douglas Experimental Electronics Laboratory, San Martin, Calif., saw the computer on exhibit at the WESCON show and wanted to buy it.

After completing the purchase for just under $10,000 in DEC's Palo Alto office, Mr. Pickette returned to accept delivery from the show floor—with a shopping cart.

In case you wonder what kind of figure was cut by an electronics company president and chief engineer wheeling his cash-and-carry computer out in a shopping cart:

Mr. Pickette, aged 20, a student at Live Oak High School, Morgan Hill, looked quite dignified.

The young Negro, who became interested in electronics when in the seventh grade, acquired his engineering knowledge by reading and by "hanging around" small electronics plants. His firm, which borrowed the money for the purchase, is developing a tape video-recorder which will automatically record a full 5-hour show program.

The president and chief engineer worked out circuit design and other data on a Monroe Quick Comp II computer which Live Oak High School had on a month's trial while contemplating its purchase.

Digital salesman, Bill Gray (L) helps Wayne load his new computer into the car for the trip home.

Takes Ad to Heart -- Wayne Pickette (L) takes our "Cash and Carry" ad seriously at the WESCON Show Seen here with his father (R), Wayne prepares to wheel his purchase out in a grocery cart, just as the blown up ad in the background suggests.

Checking with the guard -- Wayne and his father check in with the door guard (L) as DEC's Tim McInerney escorts them to their car.

Jack Smith Named to Advisory Committee at Wentworth Institute

Jack Smith, our Manager of Computer Production and Check Out, has been named to the Industrial Advisory Committee of Wentworth Institute in Boston.

Maintaining close liaison with industry is important for Wentworth, as it enables the school to keep its programs completely up to date.

An Advisory Committee is appointed for each curriculum; Jack will serve on the Committee for Electronic Engineering Technology, which plans to meet this October and early next Spring.

Having graduated from Wentworth in 1958, Jack has served the Electronic Engineering industry for nine years. With his knowledge of the field and his familiarity with Wentworth, he will be a valuable Committee member.

DECUS MEMBERSHIP SOARS

With DECUS expanding as rapidly as overall Digital growth, a note of its progress seems in order. In the past year, DECUS (Digital Equipment Computer Users Society) membership has practically doubled. Sixty new programs have been added in the past six months, and four DECUS publications are reaching users throughout the world.

DECUS was established in March of 1961 to advance the effective use of our PDP Computers and their peripheral equipment. It is a voluntary, nonprofit users group supported by DEC and administered by its own elected executive board.

Primary objectives of DECUS are threefold. It seeks to advance the art of computation through mutual education, and interchange of ideas and information. It establishes standards and provides channels to facilitate free exchange of computer programs, and it serves as a source of communication to us on equipment and programming needs. Through the Program Library, meetings, and DECUSCOPE, the users newsletter, DECUS performs its communicative functions.

DEC Adds Four Acres For Employee Parking

In an all-out effort to improve our parking facilities at Digital, the Company has embarked upon another expansion. An earlier extention of the parking area involved blasting an entire ledge from the hill on Thompson St. This second effort will provide an additional 180,000 square feet of land. Fifty thousand cubic feet of soil have been moved to supply ample parking space for our current and future needs.

Work has already begun on this major engineering project. Soil from the peninsula adjacent to the present lot is being shifted into a portion of the mill pond. There are also some concrete buildings located on the peninsula. These, too, will be blasted and deposited in the pond. After the fill has settled and the land has been leveled, surfacing will be completed. At this time the new parking area will be ready for employee use, accommodating approximately three hundred cars.

Program Library Serves Customers

The DECUS Program Library now stores about 265 programs and 2,500 tapes submitted by users for exchange. A user with a particular problem might easily find an applicable solution through the Library's service. In one year, close to 3,000 requests for programs are made and sent out to users. A program library can often be a contributing factor in the sale of computers. Applications range from the most intricate special functions to "Tic-Tac-Toe" and dice games.

One program is being used for Braille translation at Project MAC of the Massachusetts Institute of Technology. The MIT Brailler, coupled with a special interface on the PDP-8, makes high quality Braille text available to the blind by having the English copy recorded on the Teletype.

Another program contributes to education in the field of astronomy. Using a PDP-8 computer, surplus parts, and electronics designed by undergraduates, the University of Wisconsin's Space Astronomy Laboratory has a remote controlled telescope system needing no human observer present during an entire observation evening. The astronomer merely sets up a list of stars to be observed. The computer controlled system then collects and analyzes data from the telescope, and shuts itself down in the morning or if the weather turns foul.

Worldwide DECUS

DECUS meetings provide the opportunity to exchange useful computer applications and solve special problems at workshops and panel discussions. Two worldwide meetings per year are usually held near the Spring Joint Computer Conference and Fall Joint Computer Conference. In the Spring, DECUS meets on the U.S. East Coast, while Fall meetings are held in the West. This year DECUS will meet in Anaheim, California in November to discuss "Computers in the Laboratory." Smaller, more specialized symposia are scheduled during the year, such as the DECUS Biomedical Symposium, and Canadian and European meetings. The European members of DECUS plan on meeting in Holland next month.

Our contractor for the parking lot project is A. Amorello & Sons, Inc. of Worcester. Here, one of the bulldozers clears space near our present parking facility.

Increasing Parking Facilities — Bulldozers are at work filling part of the mill pond near Digital's Thompson St. entrance to expand our parking area.

Latest Graduates -- Tom Fulton (C) and Irving Paton (R) receive their diplomas and congratulations from one of their instructors, Bob DiMeo (L).

New Instructor -- John Carvalho (R) is congratulated by Joe Gaffney (R) of Personnel. John was selected from the graduating class to join the training staff as an instructor.

Training Dept. Graduates Largest Class

The Training Department recently announced the awarding of diplomas to 44 new graduates of our Basic Computer Technology Course, the largest class in the history of Digital's training program. Students from several locations in the East attended the seven-week series of classes and laboratories, given principally by instructors, Larry DeAngelo and Dave Edwards.

Since its move last Fall from Building 3 to Building 11, the Training Department has accelerated its activities to accommodate over 100 students in class per week. A year ago, the number trained was 30 per week. To meet the increased load, the staff has grown from 6 instructors and a secretary to 15 instructors and 2 secretaries. Training now has nine classrooms and a large laboratory with six computers for student observation.

DEC Ham Club to Start

Vito Augello and Harry Brockington wish to announce the creation of the DEC Ham Club. The first organizational meeting will be held on October 11, 1967, at 5:00 p.m. in the plant cafeteria.

All interested parties are invited to come to this meeting, but only licensed radio amateurs can vote or hold offices in the club.

September Anniversaries

One Year

Barbara Avey	Maureen Harris	Janet Payne
Jeanne Balmat	Peter Hawtrey	Content Pearmain
Norma Barnes	Walter Huwyler	Helen Piecewicz
Barnard Beksha	Carl Hyde	Janet Pointon
Wilfred Biela	Carole Izbicki	Roger Pyle
Diane Bleakley	Joni Jaffe	June Quinn
Detlef Bock	Oswald Josbacher	Dale Reid
Edith Bodwell	Allan Kent	David Rhydderch
Eva Boniface	William Keyworth	Margaret Rolla
Christine Callahan	William Kiesewetter	Jean Rota
Evelyn Campbell	Helen Kilroy	Lee Salt
Katherine Colley	Keith Lamb	Ronald Setera
Doris Covey	Robert Langone	Avis Sharp
Margarit Dauphinais	Phyllis Levine	Francis Souva
John Dora	Lorraine Locke	Gillian Spittle
William Dwyer	Michael McGough	Noel Stamper
Audrey Easton	Helga MacAuley	Virginia Stuart
Daniel Edwards	Leon Marchaud	Gloria Towne
Jack Fishbone	Julia Morrison	Cynthia Vanaria
Eleanor Foss	Thomas Mosco	Nason Wilkins
Cynthia Frye	Althea Myers	William Willis
Robert Glasgow	Margaret Noble	Harriet Windheim
Margaret Grady	Rebecca Nunnelee	Alice Yorston
Paul Green	Stewart Ogden	Donald Young
Boyd Greer	Natalie Chlin	Mary Zimmer
Orville Griffin	Dennis Parent	
Christopher Harrington	Johanna Parke	

Two Years

William Annesi	Nancy Ganoe	Marguerite Paul
Marion Bartlett	Dorothy Hudson	David Shoesmith
Jeanette Bourgeois	Janet Kendall	Teresa Vanaria
Enis Engel	Ada Little	Ann Windheim
Barbara Fiske	Ellen Lowell	Therese Wishart
Angela Fraticelli	Margaret Mikurt	

September Anniversaries (Continued)

Three Years

Dorothy Allen	Elfrided Jacobi	Paul Pileeki
Norma Darling	Robert Kudera	Phillis Rudnick
William Freer	James McPherson	Jonel Sutton
William Fries	Edward Maxwell	Donald Witcraft
Everett Hatch	Anthony Padula	

Four Years

Raymond Baum	John Jorgensen	Sarah Peterson
Janet Buscemi	Thomas Karpowski	Don Vonada
Robert Daigneault	John Leng	Carl Vose
Fred Haefner	Elsie Oliver	

Five Years

Patrick Greene	Win Hindle	Stefan Mikulski
Frank Grudinski	Lawrence Kearney	Edmond Pruett

Six Years

Anne Bickford	Richard Flaherty	Michele Moore
Denice Caron	Mildred Gibson	May Raynor
Florence Elwin	Lorraine Hendley	Mildred Rigney
Veijo Epailys		

Seven Years	Eight Years	Ten Years
Marion Murphy	Loren Prentice	Kenneth Olsen
Barrett Prichard	Madeline Tracey	Stan Olsen
Vera Silva		
Brad Towle		

NEW FACES AT DIGITAL

Name	Location	Department
Dorinne Delegge	Littleton	Mod. "A"
Ronald Carter	California	L. A. Office
Charles Conley	Framingham	Comp. Prog.
Joan Fine	Concord	Sm. Comp. Marktg. PDP-8
Wallace Skilling	Arlington	Personnel
Russel Iknaian	Watertown	Training
Edward Anton	Milton	Training
Russell Avery	Connecticut	Training
Leonard Baptiste	Wareham	Training
Kenneth Bouchard	Salem	Training
Ronald Calabraro	Quincy	Training
John Carvalho	Cambridge	Training
George Ciriello	Revere	Training
Carl Cline	Brockton	Training
Albert Coronite	E. Milton	Training
Joseph Coyle	Belmont	Training
Mark Drelichowski	Connecticut	Training
Peter Duke	So. Acton	Training
Edward Enser	Depew, N. Y.	Training
Gregory Esser	Pittsburgh, Pa.	Sm. Comp. C. O.
Charles Fisk	Milford, N. H.	PDP-10 Eng.
Kim Foster	New Hampshire	Training
Arthur Fuller	Stoneham	Training
Thomas Fulton	So. Natick	Training
Roger Goulet	Worcester	Training
Brian Hannon	Pennsylvania	Training
Alan Hirsch	Boston	Training
Wayne Hyam	Lynn	Training
Stewart Jackson	Swampscott	Training
Charles Kane	Pennsylvania	Field Service
Ernest Kirschner	Connecticut	Training
Michael Klopp	Connecticut	Training
Stanley Kowaleski	Pennsylvania	Training
Chi Lau	Boston	Training
Richard Maliska	Maynard	Training
Thomas Mallas	Pennsylvania	Training
Richard Michalak	Paxton	Mod. Test Sm. Comp.
Daniel Miller	Lexington	Training
Thomas Orr	Connecticut	Training
Irving Paton	Lunenburg	Training
Edwin Permon	Pennsylvania	Mod. Eng.
William Quinn	Pennsylvania	Training
Robert Regan	Norwood	Training
Eric Reinert	Pennsylvania	Training
Glenn Sorge	Alden, N. Y.	Training
Gabriel Del Rossi	Pennsylvania	Adv. & Sales Prom.
William Walton	Waltham	Lg. Comp. Eng.
Ward MacKenzie	W. Concord	PDP-10 Marktg.
George Whipps	Athol	Mech. Eng.
Frederick Aumann	Hudson	Sm. Comp. Eng.
Douglass Knowlton	Shirley	Machine Shop
Ruth Faugno	Hudson	Comp. Prod.
Susan Starr	Acton	Mod. "A"
Kil Dodge	Ayer	Mod. "A"
Nancy Ayer	Littleton	Mod. "A"
Linda Stephens	Stow	Lg. Comp. Manftg.
Hazel Demille	Concord	Mod. Marktg.
Gloria MacDonald	Littleton	Programming
JoAnne Healy	Littleton	Sm. Comp. Marktg. PDP-9
Thomas Wetherbee	W. Concord	Sm. Comp. Admin.
Eugene Bergeron	Leominster	Lg. Comp. Manftg.
John Haley	Fitchburg	Comp. Prod.
Lawrence Gardner	Leominster	Comp. Prod.
John Barnwell	Ft. Devens	Sm. Comp. Spec. Sys.
John Welch	Ft. Devens	Field Service
Preston Peckham	Maynard	Mod. "A"
Dean Sanborn	Worcester	Field Service
Joseph Patitucci	Pennsylvania	Field Service
Albert Martel	Athol	Sm. Comp. C. O.
Ralph Lombardo	New York	Sm. Comp. C. O.
Theodore Hessler	Pennsylvania	Field Service
David Fountain	Somerville	Dig. Test Sys. Eng.
Michael Donahue	Worcester	Sm. Comp. C. O.
Richard Bisson	New York	Training
Manuel Simonian	Shrewsbury	T. P. Writing
Thomas Osten	Acton	Programming
Shih Hsieh	Medfield	Programming
William Owens II	California	Mech. Eng.
Donald Larson	California	L. A. Sales
Elaine Froias	Shirley	Accounting
Sharon Davis	E. Pepperell	Mech. Eng.
Gail Bemis	Maynard	Comp. Prog.
Joanne Wallace	Marlboro	Accounting
Paul Saine	Maynard	Training
Robert O'Malley	Connecticut	Field Service
Roland Morin	No. Oxford	Machine Shop
Lorraine Lester	Maynard	Printed Circuit
Carolyn Vail	Boxboro	Mod. "A"
Kathleen Gregoire	Littleton	Mod. "A"
Thomas Spada	Connecticut	Training
Norman Stein	Pennsylvania	Field Service
Joseph Tomassetti	Connecticut	Training
Francis Zeitz	Buffalo, N. Y.	Training
John Berlied	W. Concord	Machine Shop
Ralph Metivier	Carlisle	Machine Shop
Paul Molle	Maynard	Comp. Prod.
Michael Benton	W. Concord	Comp. Prod.
Paul Sirk	Mattapan	Model Shop
Wayne Colby	Lowell	Lg. Comp. Manftg.
Robert Lashua	Fitchburg	Comp. Prod.
James Kistner	Concord	Lg. Comp. Manftg.
Ann Johnston	Maynard	Mod. "A"
Judith Dougherty	Ayer	Comp. Prod.
Sara McGuire	Groton	N. E. Sales