Box 1
Folder 7

1964 Letters to Olsen

4 of 6

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DRAFT --- DRAFT --- DRAFT Folder Record

Title: Ken Olsen Collection

Author: Olsen, Kenneth H.

Arrangement: Series I: Letters to/Letters from

Imprint: 1964

Subjects:

Description: One folder

Notes: Letters to

Summary: Feb 4 *copy* of letter from John Allen Jones to Ted Johnson: encloses new PDP-5 price lists and estimates costs for attaching additional device (diffractometer) to PDP-5

Feb 19 *draft* of letter from Harlan Anderson to Prof. John Blatt, University of New South Wales discussing software to be provided for PDP-6

undated "Some thoughts on the PDP-6 maintenance manual" 4+ single-spaced pages of concerning content and format of PDP-6 maintenance documentation

Feb 20 *copy (bcc)* of letter to Lincoln Barber, National Shawmut Bank explaining cash-flow situation and need for $400K loan

Apr 2 *copy* of letter from Robert J. Beckman, Manager, Customer Relations, Digital to Jordan Baruch, Bolt Beranek and Newman, Inc. reviewing issues to do with PDP-1D installation

Apr 8 from Paul Rawson, Van Dyck Corp.: report on recent design work with Loren Prentice and Scott Miller

May 5 from Paul Rawson, Van Dyck Corp.: report on day-long meeting—topics include review of competitive products seen at Joint Computer Conference, discussion of PDP-7 and PDP-8, cabinet design and module handle design

Jun 6 *copy* of letter from David Denniston to Prof. Eugene M. McCoy of St. Francis College describing DEC's marketing organization and the difference between customers needing a machine versus customers needing a complete system

Oct 7 from Lewis C. Clapp, of Bolt Beranek and Newman, Inc., outgoing DECUS president: regarding DEC's decision to request the resignation of DECUS secretary Elsa Newman

Oct 16 from William A. Fahle, Systems Research Laboratories, Inc., DECUS President: regarding the situation with regard to Elsa Newman's resignation

Oct 29 from Paul Rawson , Van Dyck Corp.: report on industrial design issues for PDP-8

Nov 10 from Robert A. Cesari, Blair and Buckles: letter accompanying trademark application (not in file) for PDP

Nov and Dec: various letters acknowledging receipt of and complimenting DEC's first annual report

Dec 15 from Barbara Wertz Stephenson: enclosing Caltech recommendation form and discussing the writing of PDP-8 handbook

Dec 16 from Paul Rawson, Van Dyck Corp.: regarding possible application for appearance design patent for PDP-8

Dec 16 from Prof. James J. Linn, MIT, Sloan School: request to speak to students in Jay Forrester's program on new methods of management training on the topic of the effect or an organization on its members

Dec 18 from William N. Papian, Associate Dean, Engineering, Washington University: request for gift of PDP-5 Washington University's the School of Engineering and Applied Science

Dec 22 *copy* of recommendation form from Caltech for Barbara Wertz Stephenson

BOSTON SAFE DEPOSIT AND
TRUST COMPANY

100 FRANKLIN STREET
BOSTON, MASSACHUSETTS 02106

AREA CODE 617 LIBERTY 2-9450

MANAGEMENT CONSULTING DIVISION

December 22nd, 1964.

Dr. H.E. Olsen
President
DIGITAL EQUIPMENT CORPORATION
Maynard, Mass.

Dear Dr. Olsen:

I am writing to express my deep appreciation, and that of my associate, Dr. Tilles, for your courtesy in discussing with me the history of the Digital Equipment Corporation, and some of the problems which you faced in guiding your corporation to its present position in the computer industry. The discussion was most helpful to Dr. Tilles and myself.

Dr. Tilles sends his regrets that an unexpected crisis prevented his joining with me in our discussions, but I have apprized him fully of the material covered.

With kindest personal regards,

Yours sincerely,

Ron McFarland

Ronald McFarlan (Dr.)

Cable: GENCERACO

Indiana General Corporation
ELECTRONICS DIVISION • Keasbey, New Jersey • VAlley 6-5100
MEMORY PRODUCTS, FERRITES AND STEATITE INSULATORS

December 21, 1964

Mr. Kenneth Olson
DIGITAL EQUIPMENT CORPORATION
146 Main Street
Maynard, Massachusetts

Dear Ken:

Its been some time since last we chatted. A lot has happened over the past six months. I plan to leave Indiana General by the middle of January. A phase-out of our Systems operation in September and subsequent reorganization raised grave doubts concerning my future professional growth. To help sell our systems lines and provide an orderly transfer of management in core stacks, I assured my employer I would remain at least until the end of 1964.

Thus I am writing to you for some very specific reasons. Do you have need in D.E.C. for the technical and management talents I can supply to the EDP industry? If not, do you know of any opportunities outside of D.E.C. that require a high level of technical management talent. I have attached a resume for your evaluation. You will note Ken, not only a depth in memories, but a breadth in the entire electronics field.

I would be most pleased to chat with you for an hour or two to discuss the trend of our industry today, and glean from you some suggested directions for my personal future. We at Indiana General have made some very fine strides over the years. We have also made a number of significant mistakes. Perhaps we could have a mutually beneficial discussion.

I may be reached either at the Keasbey facility or at my home (405 Brook Avenue, N. Plainfield, New Jersey).

Sincerely yours,

Gerald Smith,
General Manager
MEMORY PRODUCTS

GS:k

Massachusetts Institute of Technology
Alfred P. Sloan School of Management
50 Memorial Drive
Cambridge, Massachusetts, 02139

December 16, 1964

Mr. Kenneth H. Olsen, President
Digital Equipment Corporation
146 Main Street
Maynard, Massachusetts

Dear Mr. Olsen:

On behalf of the Undergraduate Systems Program of the Alfred P. Sloan School of Management at M.I.T., I should like to invite you to be the guest speaker at our weekly dinner meeting Wednesday, January 13, 1965. These meetings are planned by the students as a part of their course of study to discover the problems encountered in business today and how their studies as future managers can be applied to these problems.

The topic of special concern during January is the effect of an organization on its members. The students feel that as president of Digital you could contribute greatly to a discussion of balancing individual creative freedom with the need to maintain an effective organization. While this could be a starting point I am sure that the topics discussed will also cover related areas as well as the present status of the computer industry.

The Undergraduate Systems Program consists of 11 Seniors who are taking part in a voluntary 2-year experience in new methods of management training, under the direction of Professor Jay W. Forrester. The objective of this course of study is to develop insight into business systems; to bring about an awareness of the causes which interact to produce symptomatic problems in business. The program of study includes individual research projects and weekly papers for faculty tutors, as well as normal class meetings and two elective subjects. A strong emphasis is placed on individual initiative. The group of students plans its own topics of study and class schedule with faculty guidance only when sought.

As part of this program business men from outside the M.I.T. Community, such as yourself, are invited to spend a part of Wednesday evening with the group in a discussion of business problems of mutual interest followed by more informal talk at dinner. The schedule of these evenings is as follows:

4:40 - 5:00	Meet with Advisor and Evening Chairman
5:00 - 5:15	Introductory remarks Outline of your main topic
5:15 - 7:00	Group discussion
7:00 - no later than 8:30	Dinner and informal discussion - M.I.T. Faculty Club

I sincerely hope that you will be able to join us for this meeting. Would you please notify me at the M.I.T. Alfred P. Sloan School of Management, Room 52-445, UNiversity 4-6900, Extension 2673.

To help us better prepare for the meeting, could you also send a biographical sketch and any further information which you think would be helpful.

We are looking forward to hearing from you.

Sincerely yours,

James J. Linn

J. J. Linn
Assistant Professor
Advisor, Undergraduate Systems Program

JJL:ie
Enc. "A New Avenue to Management" by Professor Jay W. Forrester
cc - Martin Thomas

WASHINGTON UNIVERSITY

ST. LOUIS, MISSOURI 63110

COMPUTER RESEARCH LABORATORY
700 SOUTH EUCLID AVENUE

TELEPHONE: AREA CODE 314
FOREST 1-2311

December 18, 1964

Mr. Kenneth H. Olsen, President
Digital Equipment Corporation
146 Main Street
Maynard, Massachusetts

Dear Ken:

I would like to ask about the possibility that the Digital Equipment Corporation might make a gift of a digital computer to the School of Engineering and Applied Science of Washington University.

Enclosed is a memo from Prof. D. F. Wann, Associate Chairman of our Electrical Engineering Department, which I commend to you for perusal. In it he makes a very good case for the installation and "open shop" operation of a "hands on" digital computer like your PDP-5. He has covered the subject so well that I need only tell you that he is a dedicated educator and a good engineer under whose direction the machine would be used to good advantage for all concerned.

The need really is great, and the ground fertile. Exposure to such a computer will round out the experience of students and faculty in a crucial way. The situation reminds me, just a little, of the impact which the TX-0 had at MIT.

Jerry Cox has contributed to our thoughts on this subject, and wholeheartedly endorses the idea. He and Wes Clark are giving a course in digital computer design starting this spring, and would find such an installation very valuable.

I'm sure you realize that a gift like this would mean a great deal to all of us. Please consider it, and let me know what your reactions are.

Best wishes to you and all of our friends at DEC for a pleasant holiday and a good new year.

Sincerely,

Bill

WILLIAM N. PAPIAN
Associate Dean, Engineering

WNP/t
Enclosures

P.S. Also enclosed is a resume on Dr. Wann and a W.U. brochure.

cc: Mr. M. Ruderman

December 15, 1964

TO: W. N. Papian, Associate Dean
School of Engineering and Applied Science

FROM: D. F. Wann, Associate Chairman
Electrical Engineering Department

Here, in line with our recent discussions, is a review of Washington University's computer activities, focusing particularly on the need for a "hands-on" digital computer accessible to students and faculty.

1. The Washington University Computation Center

The history of machine computation at Washington University dates back to 1946 when a small complement of punched card equipment was installed by the department of psychology. By the 1950's, the importance of computing equipment in education and research in engineering and the physical sciences as well as the social sciences was clearly recognized. In the Fall of 1956, an IBM 650 was obtained and a computation center established on the Washington University Campus. During these first years of operation, computer utilization increased from two hours per day in 1956 to twenty-four hours a day, seven days a week by 1961.

During 1961, using University and NSF funds, an IBM 7072 was purchased to replace the IBM 650. This facility has been in operation three years and provides excellent problem solving capability for both students and faculty members. It is used by computation center staff members only, under a 'closed shop' policy.

2. Electrical Engineering Department

In 1957 a formal undergraduate 3-credit-hour course in Digital and Analog Computer Techniques was begun in the Electrical Engineering Department with an initial enrollment of 18 students. During the next seven years, the

increased interest in digital methods forced a separation of these subjects into two distinct courses; one dealing with digital logic design - the other with analog programming. To supplement the digital lecture material, a laboratory using experiments oriented around Digital Equipment Corporation's laboratory modules was initiated in the Spring of 1963. Student interest has steadily increased and at present 60 undergraduates annually enroll in this lecture-laboratory program.

Concurrently, the graduate curriculum was developing strong offering in the digital computer design area. In 1957, a 3-credit-hour one-semester course in digital computer design principles was started - later expanded to its present two-semester length. Present enrollment is 20. Plans have been made for the establishment of an integrated graduate laboratory to begin this coming Spring in which the student will be required to construct a small scale digital computer.

Numerous research activities have been direct outgrowths of these formal presentations, including such thesis topics as:

a) "System Design of a Small Multisequence Computer".
b) "A digital Computer for Analyzing Certain Bioelectric Signals".
c) "A High Speed Quantizing Encoder".
d) "A Digital Sine Wave Oscillator".
e) "Binary to Decimal Code Conversion".
f) "Geometric Pattern Recognition".

3. Computer Science Department

The establishement of a Computer Science Department in 1963 under the direction of L. Cooper helped to consolidate the areas of "machine programming" and "machine design". The primary departmental objective is to provide a broad spectrum of educational programs from advanced

numerical analysis techniques to detailed circuit design. Appropriate faculty members from Engineering Analysis and Electrical Engineering were given joint appointments in the new department. Current course offerings include:

Numerical Analysis
Computer Programming Theory
Artificial Intelligence Machines
Logic Design of Switching Circuits
Digital Computer Design
Pulse and Digital Circuits

4. Other Washington University Computing Facilities

During 1963-1964 the Biomedical Computer Laboratory under the direction of J. R. Cox and the Computer Research Laboratory under the direction of W. N. Papian were formed. These laboratories are actively engaged in the design and application of on-line data processing machines chiefly for biomedical research purposes, and are located on the Medical School Campus, which is physically separated from the main Washington University educational plant. They are therefore not readily available to other than medical school students and faculty.

In the Spring of 1964, the Simulation Laboratory, directed by D. F. Wann and located in the Engineering School was organized as a computing facility to accomodate a wide variety of digital, analog, and hybrid problems. The primary function of this laboratory is to provide an open center for a wide variety of computing and input-output equipment, both analog and digital. It is here that a readily accessible digital computer could be excellently used for education, research, and demonstration purposes. The argument for such an installation is made in the following paragraphs.

5. Limitations of Present Computer Programs

In the close examination of the various Washington University computer oriented courses and equipment, it is very apparent that one serious vacancy has persisted. This is an almost complete lack of "hands-on" digital computer experience for the students and faculty. The Washington University Computation Center, although satisfying an important need for high speed processing, is a closed shop operation in which the user provides a punched deck of cards and in four hours is presented with a processed program. This type of organization militates against constructive and inquisitive interaction between the computer and the user, thus restricting research initiative and inventiveness.

Probably the most serious limitation, however, is the lack of any type of on-line data processing and graphical display capability. Due to the design philosophy of the IBM computers, the student does not usually become aware of the full potential of digital machines. He measures performance in terms of size and speed rather than in <u>overall</u> data-processing ability. And, he may become so indoctrinated that intelligent discussion of other computers or features such as analog-to-digital conversion, graphical display, light pen communication, etc. is impossible.

Thus, to fully complement our present curriculum and research activities in the computer sciences, we must make every effort to provide the students <u>and</u> faculty with a comprehensive view of modern computer technology. Such a view should necessarily include on-line data processors.

6. Machine Characteristics

The digital machine requirements described above would be satisfied by the acquisition of a computer similar to the Digital Equipment Corporation's PDP-5. These low cost, reliable machines are designed for use as independent information handling devices and on-line data processors. The PDP-5's address, word, and operation-code structure are well suited to scientific problem processing. In addition, the data and program interrupt capability along with analog-to-digital conversion and graphical display options, make it well suited for analog signal inputs and visual data analysis.

The minimum equipment complement required for our purposes would consist of the standard PDP-5 including:

a) Central processor
b) Printer Keyboard
c) Perforated Tape Reader Punch
d) Input-Output Control
e) Magnetic Core Memory (4K very desirable)

Accessories that would greatly expand the machine's usefulness are: (in order of importance)

a) Analog to digital converter
b) Magnetic tape transport
c) Oscilloscope display

7. Utilization and Physical Location

Although this proposed computer would be used primarily for undergraduate and graduate instruction and research programs in the Electrical Engineering Department and the School of Engineering and Applied Science, it would be available to other branches of the University, too. It would definitely serve as a "hands-on" machine and every effort would be made to achieve as much direct student-computer association as possible.

The design philosophy and instruction format of the PDP-5 makes it especially suited for these needs. Furthermore, the oscilloscope display yields "real time" information which is almost indespensible when using the Computer as a teaching aid. And, the high sampling capacity of the analog-to-digital converter is particularly valuable in many research studies.

The machine would be located in the Engineering Building and placed in the Simulation Laboratory which currently contains a medium size analog computer (Electronic Associates TR-48). The addition of the PDP-5 would thus also provide excellent opportunities for digital and hybrid simulation studies.

October 1964

RESUME

Donald F. Wann

Associate Professor of Electrical Engineering, Washington University
St. Louis, Missouri 63130

Date of Birth: March 28, 1932, St. Louis, Missouri

Citizenship: U. S. A.

I. Degrees and Awards

B. E. in Electrical Engineering, Yale University, 1953
Recipient of Yale Regional Scholarship
M. S. in Electrical Engineering, Washington University, 1957
Recipient of Century Electric Fellowship
D.Sc. in Electrical Engineering, Washington University, 1961
Recipient of Westinghouse Electric Fellowship

II. Fields of Major Interest

Digital and analog computer design and applications; hybrid simulation; switching theory; digital circuits.

III. Scientific and Professional Societies

1. Tau Beta Pi (Engineering Honorary)
2. Eta Kappa Nu (Electrical Engineering Honorary)
3. Sigma Xi (Scientific Honorary)
4. Institute of Electrical and Electronic Engineers
5. Simulation Council
6. Engineers Club of St. Louis
7. American Society for Engineering Education

IV. University Positions and Committees

A. School of Engineering

1. Director, Schwentler Computer Laboratory, 1962 - present
2. Director, Simulation Laboratory, 1964 - present
3. Director, Bell Telephone Regional School Program, 1962 - present
4. Speaker, Faculty Assembly, 1963-1964
5. Member, Steering Committee, 1963-1964
6. Member, Faculty Assembly Advisory Committee, 1962-1963
7. Member, Disciplinary Committee, 1963 - present
8. Faculty Advisor, Tau Beta Pi, 1962-1964

B. University

1. Member, Senate Council, 1964 - present
2. Member, Student Advisory Board, 1963-present
3. Faculty Fellow, 1963-1964

V. Academic Experience

Associate Professor, 1964 - present
Assistant Professor, 1961, 1962, 1963
Lecturer, 1959, 1960
Instructor, 1957, 1958

A. Undergraduate Courses Taught

1. D. C. Circuits (and Laboratory)
2. A. C. Circuits (and Laboratory)
3. Electric and Magnetic Fields
4. D. C. Machines
5. A. C. Machines and Transformers
6. Electronics (and Laboratory)
7. Transients
8. Transmission Lines
9. Analog and Digital Computers
10. Switching Circuits
11. Systems Engineering
12. Communication Theory
13. Servomechanisms

B. Graduate Courses Taught

1. Switching Circuits
2. Analog Computer Programming
3. Digital Computer Design

VI. Research Grants and Programs

1. du Pont Grant, Summer, 1963, for "Improvement of Course Offerings in Switching Circuits."
2. NASA Grant, 1964-1965, "Research in Hybrid Simulation."
3. Bell Telephone Company, 1962 - present, Development of Continuing Education Program for Bell Telephone Engineers.

VII. Research Supervised

A. Research Projects Completed

1. "Analog Computer Simulation of Limit Stop Problems," Master of Science thesis of Clifford Holland, 1963.
2. "A Charge Control Analysis of a Bistable Circuit," Master of Science thesis of Ralph Mueller, 1964.
3. "Analysis of Code Conversion Techniques," Master of Science thesis of David Lynch, 1964.
4. "Design and Construction of an Automatic Inspection Machine Using Pattern Recognition Techniques," NSF Undergraduate Research Program, Philip Berger, summer 1964.
5. "Sequential Learning Circuits," NSF Undergraduate Research Program, Bernard Aims, summer 1963.

B. Research Projects in Progress

1. "Digital Computer Synthesis of a Complex Connection Matrix," M. S. thesis project of R. W. Schewe.
2. "Coeherent Frequency Synthesizers," M. S. thesis project of D. R. Kozlowski.
3. "Analysis and Design of Analog Memory Devices," M. S. thesis of S. Sherman.
4. "Pictorial Data Scanning and Processing," NSF Undergraduate Research Program, P. S. Berger.
5. "A Display for Threshold Logic Functions," NSF Undergraduate Research Program, R. E. Hitchens.
6. "Development of Analog Memory Devices," NSF Undergraduate Research Program, R. E. Goldwasser.

VIII. Principal Publications and Seminars

A. Publications

1. "One Solution to the Problem of Continuing Education for Engineers in Industry," Proceedings of the National Electronics Conference, October, 1964.
2. "A Simulation-Calibration System for Space Flight Landing and Rendezvous Control Systems," Proceedings of the National Electronics Conference, October 1962.
3. "Application of the Matric Computor," D.Sc. Dissertation, Washington University, 1961.
4. "Proximity Detector," Patent Pending, 1962.
5. "Magnetic Amplifier Control of Two Phase Servomotors," M. S. Thesis, Washington University, 1957.

B. Seminars

1. "Hybrid Computers - what are they - who needs them?" December 1964, Washington University.
2. "New Developments in Artificial Intelligence," February 1963, Washington University.
3. "Optimal Codes for Data Transmission," November 1963, Washington University.
4. "Design of Logical Networks," December 1962, Washington University.
5. "Analog Computers in Railroad Classification," Missouri Pacific Lines, October 1961.

IX. Industrial Experience

1. Eltec Company
   Consultant: Circuit design of d-c to d-c converters and photoelectric detectors.
2. Glenn L. Martin Aircraft Company, Baltimore, Maryland, 1953-54
   Servomechanisms engineer.
3. Industrial Research and Testing Laboratories
   Consultant: Underwriter's testing.
4. McDonnell Aircraft Corporation
   Consultant: Analog computer and airplane dynamics departments.
5. Missouri Pacific Lines
   Consultant: Electronic Circuit design.
6. Missouri Research Laboratories
   Consultant: Digital radar range calibrator; binary to decimal converters.
7. Railroad Accessories Corporation, New York
   Consultant: Design of magnetic proximity detectors.
8. Sverdrup and Parcel Engineering
   Consultant: Analog computer programming.
9. Turner Electric Company
   Consultant: Circuit breaker testing.
10. Universal Match Corporation, Unidynamics Division
    Consultant: Digital circuits
11. U. S. Army, Fort Bliss, Texas
    Instructor, Fire Control Systems, 1954-56.
12. Watlow Electric Company
    Consultant: Arc suppression circuitry.
13. S. E. Watson and Associates
    Consultant: Digital system analysis.

CALIFORNIA INSTITUTE OF TECHNOLOGY

ADMISSION TO GRADUATE STANDING
GRADUATE ASSISTANTSHIPS
SCHOLARSHIPS AND FELLOWSHIPS

CONFIDENTIAL REPORT ON APPLICANT

Name of Applicant BARBERA WERTZ STEPHENSON

Report submitted by Kenneth H. Olsen (PLEASE PRINT) Date 12/22/64

The Committee on Graduate Studies would appreciate your opinion concerning the applicant named above, who is under consideration for appointment in this Institute. Your report will be treated confidentially. What are your personal impressions of the applicant's (1) scholarship and capacity for advanced and original work, (2) character and personality, and (3) drive and enthusiasm? *Please compare him with any of your students* (not necessarily in the same field) who have come to the California Institute of Technology for graduate work.

Barbera has worked as an Engineer for Digital Equipment Corporation since her graduation from M.I.T. in 1960. We have always felt her to be one of our most capable and inventive engineers. For several years, she worked as an Applications Engineer, showing customers how to use our circuit modules. She was successful in this position because of her technical competence and helpfulness. Following this assignment, she became a Development Engineer, responsible for designing analog circuits and analog to digital converters. Her design ability is excellent and Barbera developed a number of good products. Through all of her work with DEC, she has been pleasant and cooperative, yet aggressive in attaining her objectives. I believe she has the ability to do creative work and am pleased to recommend her for acceptance to your Graduate Studies Program.

Official rank of applicant in his department: .....out of.....students. Your own estimate of his rank.....
Among all students who have been in your department in recent years, applicant is top man ☐, ranks in upper.....%.

Applicant's Promise for Graduate Study and Research

Check only one

- ☒ Exceptionally good
- ☐ Good; no major weaknesses
- ☐ Weak in some respects, such as .....
- ☐ Poor

Promise for Teaching

Check only one

- ☐ Exceptionally good
- ☒ Good; no major weaknesses
- ☐ Weak in some respects, such as .....
- ☐ Poor

(Signature) Kenneth H. Olsen (Position) President

(Address) Digital Equipment Corporation, Maynard, Massachusetts

Please return this form to the Dean of Graduate Studies, California Institute of Technology, Pasadena, California.

GAF - 8-64

395 S Oakland Ave
Pasadena, Calif
December 15, 1964

Kenneth H. Olsen
Digital Equipment Corp
Maynard, Mass

Dear Ken

I have enclosed the Cal Tech recommendation form and appreciate so much your doing this for me. Most of Cal Tech's courses run a full year, but, if I can be accepted in time, I could begin to take one or two courses the first of January. I think I could work this in with writing the 8-handbook and it would give me a chance to catch up on some math.

I talked to Jim Burley and to Ted Johnson about the handbook and we are all quite excited about it. Jim has also talked to Nick and he is pleased. I will talk to Stan next week about the Flip-Chip - Lab-Module Handbook (we'll need a catchy name) and will send you a sketch on the A to D.

Thank you so much.

Sincerely

Barbara Stephenson

THE FOXBORO COMPANY

NEPONSET AVENUE
FOXBORO, MASS. 02035

December 18, 1964

Mr. Kenneth H. Olsen, President
Digital Equipment Corporation
Maynard, Massachusetts

Dear Ken:

Thanks for the Memory - Plane that is. Resting on my desk itwill be a conversation piece for a long time to come.

As you say, it is fascinating because it is the type which is included in the computers Foxboro is using. I would like to add it is fascinating because obviously it is impossible to make by hand or by machine.

It is certainly a most welcome addition to my collection of paper weights and business knick knacks.

With sincerest thanks and wishes for a Happy Holiday Season.

Sincerely,

R. A. Bristol
President

RAB:FH

digital equipment corporation (UK) ltd.

11 CASTLE ST. - READING - BERKS

Telephone Reading 57231 - Telex 84327

16th December, 1964.

JL/HC

Mr. Kenneth H. Olsen,
President,
Digital Equipment Corporation Ltd.,
46 Main Street,
MAYNARD,
Massachusetts.

Dear Ken,

Thank you for your letter of 11th December. I think you were probably referring to a letter Geoff Finch sent you in regard to forming corporate ties with a U.K. or Canadian Manufacturer. However, I agree with you entirely on this one although, as an aside to the main point of previous experience, I'm not certain whether Anglo-Saxon attitudes on morality is an umbrella I'd like to shelter under or not!!

I'm coming over to Maynard on Tuesday, 12th January, for a few days so we'll have an opportunity then to discuss the U.K. operation. As you say, things look pretty encouraging here at the present time.

All the best for Christmas.

Yours sincerely,

John.

(JOHN LENG)

VAN DYCK ASSOCIATES DIVISION OF VAN DYCK CORPORATION SOUTHPORT, CONN. 06490 AREA CODE 203 259-5253

December 16, 1964

Mr. Kenneth Olson, President
Digital Equipment Corporation
Maynard, Massachusetts

Dear Ken:

It is my serious recommendation that an appearance design patent application be made on the PDP-8. This to be in the names of Paul Rawson and Scott Miller as the inventors with assignment to Digital Equipment Corporation. This product concept and its appearance manifestation as well as the product pricing can have a significant impact on the market and possibly set a bench mark for other manufacturers to follow and to possibly imitate in appearance.

Added significance for protecting this product's concept lies in the excellent opportunity of its receiving National recognition in the WESCON Awards program next year.

My experience with patenting procedure on consumer goods, for instance, indicates that application for an appearance design patent and the marking of the product "Patent Applied For" is a strong deterrent against other manufacturers taking advantage of design effort made by the original manufacturer. The potential copier has no way of knowing whether the patents which have been applied for are "design" patents or "mechanical" patents and this introduces another hurdle in the path of the would be copier.

If you believe that it is appropriate to proceed on appearance design applications, it is Bob Cesare's advice that he will need a photograph from Frank Atwood from which patent drawings will be prepared.

Perhaps you can give Bob a Go or No-Go telephone call at your earliest convenience.

Sincerely,

Paul

Paul Rawson, ASID
Vice President/DESIGN

POR/ctk

CONTACT REPORT

CLIENT	Digital Equipment Corporation
DATEOF CONTACT	14 December 1964
TYPE OF CONTACT	Plant visit
PERSONS CONTACTED	Loren Prentice, Bob Lassen, Personnel Mgr., Jim Hastings, Ron Cajolet, and Bob Cesare (Telephone)
DISTRIBUTION:	Loren Prentice, Ken Olson, Ron Cajolet, KVD GLS, POR, FILE
SUBJECT:	Industrial Design Consultation.

FUTURE ACTION: VDC To submit proposal to Loren Prentice for increased rate of activity to take up the slack of Scott Miller's departure. This to continue until a new industrial designer is brought into DEC. Paul Rawson to assist in locating man and to have opportunity to interview the industrail designer candidate that Loren finally decides will be a good man for the job.

MINUTES OF 14 DECEMBER MEETING:

PDP-8 PROGRAM DATA PROCESSER: Ron Cajolet has agreed to mark up an engineering print of the upper cabinet indicating cross sections at the front of the case where the case comes together with the frame. I propose by copy of this report to Loren Prentice that he approve two days time for design work to be done in VDC offices to prepare a perspective drawing of this upper cabinet in which we will propose alternate front treatments. This to resolve a situation presently unsatisfactory in appearance. Ron should also send along with the marked print, a copy of photographs taken December 14th of the PDP-8 in its present model form.

Ron and I are concerned about the structural rigidity of the upper case as it is represented in the present model. I have recommended that the rear element(side view)of the case structure be widened to approximately a 1-3/4 dimension to help alleviate this weakness problem.

During my visit I called the Weyhauser Company in Boston and talked with Mr. Ralph Hill, Sales Representative for their molded products. He will call Ron by Thursday of this week to describe to him his material and process which I have seen used as a case construction for Westinghouse Portable Record Players. Mr. Hill indicates that his materials also used in automotive construction and molding of housings for refrigerators.

Ron is proceeding to have the darker tinted Plexiglass bent to shape for viewing on the mock-up model. It is my opinion that it will be too dark and that the present tinted Plexiglass is more appropriate. In looking at the model it appeared that the front surface of the upper case would be more effective in appearance if the handles were relegated to a low position and

the cabinet frame members be subordinated to read horizontally across with the tinted Plexiglass. This should provide a more stable, less towering appearance by stressing the horizontal rather than the vertical form. The sketches which VDC proposes to do would probably indicate a texture in these vertical center members.

Ron has agreed to rework the side panel trim toward an evaluating of a single piece wrap-around aluminum extrusion having minimum corner radii. It is my opinion that the joints at the corners will have a more finished appearance and the slight corner radii will be in character with the radii developed on the upper case front corners.

The front panel was moved forward to a position 9/16 forward of the front edges of the side panels. A cross section for the aluminum extrusion around the front panel was sketched out and Ron will have the model shop make a sample of this cross section and incorporate it into the model. The toggle switch handles were discussed and it is my recommendation that a zinc diecast handle be used. A frosted chrome plating would be appropriate for these parts and preferable to plastic molded parts. I'm advised that a two cavity mold for a diecasting is costed out at $2,100. The die for plastics molding would be $1,700. With a price of 16.5¢. The colorful front panel is extremely attractive and in conjunction with the woodgrain side panels and the materials and dramatic presentation of the upper unit contribute to one of the most impressive pieces of electronic equipment I have had the pleasure of seeing. The background color which is presently an off-white on the control panel should be changed to a somewhat darker gray. This to off-set an effect of being a mismatch with the other white on the panel and a somewhat dingy color. It is possible that the bezel around this front panel will look best if in a painted finish - either to match the color of the panel or to contrast being the charcoal brown color. Ron has agreed to reduce the width of division lines on the front panel by approximately 50%. They are presently much too heavy to achieve the refinement we are seeking.

The dark areas on the front panel are presently too purple in color and will be rescreened on a new panel to match the charcoal brown presently used by DEC on cabinetry. Ron will obtain pieces of non-glare glass to be used in subsequent screen samples of the front panel. This to avoid the familiar and unpleasant effect of reflection of the operators white shirt in the front of the control panel as with black bakelite on laboratory test equipment.

END REPORT

Paul

Paul Rawson, ASID
Vice President/DESIGN
POR/ctk

UNITED RESEARCH
INCORPORATED
1730 CAMBRIDGE ST., CAMBRIDGE, MASSACHUSETTS 02138 / TELEPHONE (AC 617) 868-7010

December 11, 1964

Mr. Kenneth H. Olsen
President
Digital Equipment Corporation
146 Main Street
Maynard, Massachusetts

Dear Mr. Olsen:

General Georges F. Doriot has suggested that the AR&D affiliated companies exchange information, as appropriate, concerning their interests and capabilities.

The enclosed new brochure gives you information on United Research. Specific URI capabilities which may be of interest to your company are:

(1) Economic and Business Forecasting — forecasts up to 15 months ahead; 10-year projections; conferences; custom economic studies; sales forecasts for industries and companies. Clients include over 75 of Fortune's 500 largest companies. Please see pages 4-5.

(2) Market Research — new product evaluation; product sales potential; sales analyses; pricing and distribution studies; advertising effectiveness studies; trouble shooting.

(3) Overseas Research — information on foreign products, markets, etc. through affiliates in over 30 countries.

(4) Long-range Planning, Diversification, and Acquisition/Merger Studies — conversion to industrial markets.

Mr. Kenneth H. Olsen
Digital Equipment Corporation

(5) Acquisition and Antitrust Services — please see page 5.

(6) Transportation and Logistics Studies — studies of plant sites, warehouse locations and modes of transportation; logistics and distribution systems; long-range planning; markets for new vehicles; regional requirements. Please see page 2.

(7) Defense and Space Systems Management Studies — management performance evaluations; training programs and materials; analysis of organization, manning and external relations of project offices. Please see page 3.

We will be glad to give you further information on any of these areas — and the others described in the brochure — and to answer questions which you may have, without obligation.

When you believe that our experience and capabilities can provide your company with needed additional facts which can aid decision-making, I would appreciate your getting in touch with me.

Sincerely,

Stuart D. Cowan

Stuart D. Cowan
President

SDC/pmh
Enclosure

P.S. An extra copy of this letter and the brochure are enclosed in the event that you wish to route them to the individual directly concerned with these areas. Thank you.

NM
14C

IBM

Industrial Products Division
1000 Westchester Avenue
White Plains, New York 10604

Telephone: 696-1900 (Code 914)

International Business Machines Corporation

December 11, 1964

Mr. K. Olsen, President
Digital Equipment Company
146 Main Street
Maynard, Massachusetts

Dear Mr. Olsen:

Effective today, IBM equipment which is to be re-marketed by other equipment manufacturers will be available on purchase terms only. Such equipment may be procured through our installment payment plan. Our rental plan will still be available to you on equipment ordered for your internal use.

Since we cannot control other manufacturers' plans for the production or procurement of equipment similar to that which they presently lease from us, this new policy will afford protection from the risk of large-scale rental discontinuances. The amount of rental equipment presently installed and the increasing rate of new orders combine to subject IBM to an unreasonable exposure to financial loss.

Rental orders for equipment to be re-marketed, received prior to this date, will be honored for scheduled or improved delivery. However, deferrals will be treated as new orders and will be accepted on purchase terms only.

Very truly yours,

W. B. McWhirter

W. B. McWhirter, President
Industrial Products Division

WBM:erg

BOSTON SAFE DEPOSIT AND TRUST COMPANY



100 FRANKLIN STREET
BOSTON, MASSACHUSETTS 02106

AREA CODE 617 LIBERTY 2-9450

MANAGEMENT CONSULTING DIVISION

December 8, 1964

Mr. Kenneth H. Olsen
President
DIGITAL EQUIPMENT CORPORATION
Maynard, Massachusetts

Dear Mr. Olsen:

I am looking forward to meeting with you on Friday, December 11th at 9:00 a.m. I will be accompanied by Mr. Ronald McFarlan, who is collaborating with me on my research project concerning the electronics industry.

Cordially,

Seymour Tilles

Dr. Seymour Tilles

File

12-4-1964

from the desk of: ROGER CHAMBERS
29 Bromfield St.
Wollaston, Mass. 02170
Phone: 617/472-3086

Dear Ken: —

I am very proud and pleased to have received a copy of your first annual report.

The presentation is in keeping with all of your printing, advertising — excellent. The figures are made more interesting and while I in no way qualify as an expert I am really impressed.

One thing, however, does not appear, and that is personnel and I'd like to just say to you as one of your older suppliers that from the President down through to the Receptionist I've never been associated with nicer people

Sincerely

Roger H. Chambers

Acme ACME Electric
CORPORATION
CUBA, NEW YORK

NCR THE NATIONAL CASH REGISTER COMPANY • DAYTON 9, OHIO
DATA PROCESSING • ACCOUNTING MACHINES • CASH REGISTERS • ADDING MACHINES • SUPPLIES AND SERVICE

DATA PROCESSING CENTER
NEW YORK 21, N.Y.
660 Madison Ave.
Phone 832-9000
201

December 2, 1964

Mr. Kenneth H. Olsen, President
Digital Equipment Corporation
146 Main Street
Maynard, Massachusetts

Dear Ken:

All arrangements have been made for your trip to Dayton. In the morning, we can tour the manufacturing facilities and get a closer look at NCR products. Afternoon appointments have been set up with Product Planning for the purpose of discussing integrated circuits and your PDP-8 Computer.

Your Sunday night reservation (guaranteed late arrival)is at the Dayton Inn, at Third and Ludlow Streets, Dayton, Ohio. Look forward to seeing you then and there.

Very truly yours,

Don (dc)

D. L. Scanlon
Eastern Regional OEM Sales Manager

DLS:sc

cc: R. A. Reichter

2754 Anchor Avenue
Los Angeles 64, California

November 30, 1964

AIR MAIL

Mr. Kenneth H. Olsen
President
Digital Equipment Corporation
146 Main Street
Maynard, Massechusetts

Dear Ken:

It was certainly a pleasure having dinner with you the other night and, like you, I'm sorry we didn't have an opportunity to do it a lot sooner.

After our discussion, particularly regarding the need for an accurate computer graphical input device, I thought about the Rand Tablet. In case you are not familiar with the concept, the computer gang at the Rand Corporation has developed a device which will perform some of the functions of a light pen--that is, reading the position of a stylus in digital form to high accuracy. While the system has a number of limitations, it does offer some unique advantages over using the cathoderay tube face as the plotting surface. A non-exclusive license with very modest royalty is available from Rand. If you are interested, you might write to John Hogan, Rand Corporation, 1700 Main Street, Santa Monica, California, regarding the device and the licensing terms.

My plans for the future have become a little clearer in that I am convinced that I should try putting together an enterprise of my own;zeroing in on the specific area, however, will take some time. I would be delighted if it could be in conjunction with your company.

Again, thank you for the delightful dinner; I hope that any time that you have occasion to be on the West Coast you will let me know so that my wife and I can return your hospitality.

Cordially,

George

GEORGE EISLER

GE:sl

P.S. Since I dictated the letter, I heard about two other

companies in the field. I don't know details about either one:

Auto-Trol Corp.
Systems Division
Arvada, Colorado

Digital Electronics, Inc.
Anaheim, California (?)

file

NCR THE NATIONAL CASH REGISTER COMPANY • DAYTON 9, OHIO
DATA PROCESSING • ACCOUNTING MACHINES • CASH REGISTERS • ADDING MACHINES • SUPPLIES AND SERVICE

DATA PROCESSING CENTER
NEW YORK 21, N.Y.
660 Madison Ave.
Phone 832-9000
201

November 18, 1964

Mr. Kenneth H. Olsen, President
Digital Equipment Corporation
146 Main Street
Maynard, Massachusetts

Dear Ken:

Thank you very much for a warm reception in Maynard last week. I enjoyed talking with you about the computer field and look forward to more of these chats in the future.

I appreciate your recent order for the EM-D2 Card Reader. This unit has been extremely successful with us, and I am confident that it will work out well in your application.

Since I last talked to you, your computer data has been sent to Dayton. I have also talked with our Product Planning group, and it was suggested that plans be made for getting together in Dayton, during the first week in December. Perhaps at that time, we could also plan to demonstrate our OEM products. Suppose I call you soon to see if this is appropriate, and if this time frame would be suitable. In the meantime, if you have any questions, I would be pleased to hear from you.

Very truly yours,

D. L. Scanlon
Eastern Regional OEM Sales Manager

DLS:sc

cc: R. A. Reichter

BEAR, STEARNS & CO.
MEMBERS NEW YORK STOCK EXCHANGE
ONE WALL STREET
NEW YORK 5, N.Y.

November 18, 1964

Mr. Kenneth H. Olsen
President
Digital Equipment Corporation
Maynard, Massachusetts

Dear Ken:

I read that you have recently issued your first annual report. Since we do not have a copy of it in our American Research and Development file, I was wondering if you would be good enough to send me one.

sent 11/23/64

Yesterday I met Bob Hughes, president of Data Trends of Parsippany, New Jersey. He is seeking some additional financing. In our conversation, he indicated that he knew you well, and I wondered if you had any thoughts on his abilities and the attractiveness of his business and product ideas. I would really appreciate any comments that you have on this.

My very best wishes.

Sincerely,

Melvin J. Gardner

MJG:mj

3C

COMPUTER CONTROL COMPANY, INC.
OLD CONNECTICUT PATH. FRAMINGHAM, MASS.
BOSTON (617) 235-6220, FRAMINGHAM (617) 875-6185
TWX 617-872-0653

November 16, 1964

Mr. Kenneth H. Olsen, President
Digital Equipment Corporation
Maynard, Massachusetts

Dear Ken:

Thank you very much for the annual report. It is quite impressive in both appearance and results reported.

A copy of our fiscal 1963 report and a mid 1964 report are enclosed. Our fiscal 1964 report will be available in late December, and I'll send you a copy then.

— filed in annual report file

Sincerely,

Ben

Benjamin Kessel
President

/emh

Enclosures: 1963 Annual Report
1964 Interim Report

IBM

Data Processing Division
235 Lafayette Street
Salem, Massachusetts

Telephone: PIoneer 4-7973

International Business Machines Corporation

November 16, 1964

Kenneth H. Olsen, President
Digital Equipment Corp.
Maynard
Massachusetts 01754

Dear Mr. Olsen:

A significant new IBM system will be introduced Wednesday, November 18, 1964. We are planning a special presentation to cover the major points of our announcement.

The presentation will be given November 18, at 10:30 A. M., in the New England Life Hall, Corner Boylston and Clarendon Streets, Boston, Massachusetts.

You and your associates are cordially invited to attend, and I hope to have the pleasure of seeing you there.

J. G. Tagney

J. G. Tagney
Branch Manager

Chas. Adams

Discfile

Morgan Walker

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140
90
230

50%
50% Traffic Handling

→ 215K — mod. #100
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Jim

3 → Brueder
Singer Co.

BOSTON SAFE DEPOSIT AND
TRUST COMPANY

100 FRANKLIN STREET
BOSTON, MASSACHUSETTS 02106

AREA CODE 617 LIBERTY 2-9450

MANAGEMENT CONSULTING DIVISION

November 12th, 1964.

Mr. Kenneth H. Olsen
President
DIGITAL EQUIPMENT CORPORATION
Maynard, Massachusetts.

Dear Mr. Olsen:

Thank you for your invitation to come and speak with you about the history of your company. I should like very much to do this.

I will be away for the next several weeks but will contact you late in November in order to arrange a convenient opportunity for us to get together.

Your cooperation in our research is very much appreciated.

Sincerely,

Seymour Tilles

Seymour Tilles(Dr.)

BLAIR AND BUCKLES

PATENT AND TRADEMARK COUNSEL

89 STATE STREET

BOSTON, MASS, 02109

742-3340

JOHN C. BLAIR
ROBERT A. BUCKLES
ROBERT A. CESARI
F. EUGENE DAVIS IV
RONALD J. ST. ONGE
W. HUGO LIEPMANN
JOHN F. McKENNA
ROBERT A. CAHILL

STAMFORD OFFICE
500 SUMMER STREET
STAMFORD, CONN. 06902
324-6155

November 10, 1964

Mr. Kenneth H. Olsen, President
Digital Equipment Corporation
Maynard, Massachusetts

Re: Application for Registration of PDP
File 83T-10

Sent book & Bob on 11/17/64

Dear Ken:

I am enclosing the above trademark application for execution by you. Kindly sign where indicated on pages 2 and 3. Your signature on page 2 should be witnessed by a Notary Public.

As soon as you return the executed application to us we will file it in the Patent Office.

Sincerely yours,

Bob

Robert A. Cesari

D:e

Enclosure

cc: Mr. James P. Hastings, Jr.

File

BROADBENT
LABORATORIES
INCORPORATED
3431 LOMITA BOULEVARD • TORRANCE • CALIFORNIA
DAVENPORT 5-7373

November 4, 1964

Mr. Kenneth H. Olson, President
Digital Equipment Corporation
146 Main Street
Maynard, Massachusetts

Dear Mr. Olson:

We appreciated the hospitality extended to us during our visit to Digital Equipment Corporation on October 22nd. Thank you for the opportunity to tell you and your staff about our thin magnetic film techniques.

We would welcome an opportunity to work with DEC in applying our thin magnetic film developments to their special applications. I am taking the liberty of following up our visit with a letter to Richard Best and James McKalip containing additional details in the hope that we may indeed find some mutually interesting and profitable area of application.

Thank you again for your consideration and courtesy.

Very truly yours,

BROADBENT LABORATORIES, INC.

Kent D. Broadbent

Kent D. Broadbent
President

KDB/jn

CONTACT REPORT

FILE: Client
BY: Paul Rawson
PR/mhm - 10/30/64

CLIENT: Digital Equipment Corporation

DATE OF CONTACT: 10/29/64

PERSONS CONTACTED: Loren Prentice and Scott Miller

TYPE OF CONTACT: Plant Visitation by Paul Rawson

SUBJECT: PDP-8

DISTRIBUTION: Ken Olsen, Loren Prentice, Scott Miller
Ken Van Dyck, Paul Rawson

At the risk of repeating myself I will say that the PDP-8 Program Data Processor in its bench-mounted version is the most exciting project from an industrial design viewpoint that I have experienced at DEC. Considering its flexibility for various use situations, its compactness and the accessibility of internal component parts, this product lends itself beautifully to a dramatic presentation through its appearance. Tinted transparent Acrylic covers are proposed to permit a view into the upper portion of the processor to expose the racks, cards, card handles and a portion of the frame. The finishes and forms of these pieces do more to express the inherent quality and character of the processor than can any finishes applied superficially to the outside of the cabinet. VDA is recommending the use of side panels on the lower third of the processor. These side panels to carry wood veneers or surfaces of other colors or textures. The wood grain material if used will impart a more humanized expression of the equipment's characters than does much of the computor equipment available today which is prone to have a cold sterile quality.

MINUTES OF OCTOBER 29 MEETING:

TABLE MODEL: Contours and joinery were discussed and generally agreed upon relative to construction of the translucent plastic and painted metal top covers. The control panel was discussed at some length with Loren Prentice, Scott Miller, and Ron Cajolet. It is my recommendation that the color breakup of the front panel in reference to groupings of control components be considered as a subtle combination of areas rather than strong contrast. The rocker switches were discussed and their appearance and means of mounting tentatively agreed upon. Scott Miller will be laying out three view sketches on the foregoing details and will forward prints to me upon which I will comment in turn.

CABINET MODEL: The need for stabilizer feet to prevent cabinet falling forward when processor is slid forward will be eliminated since the boomerang table which we designed at this meeting will serve the same purpose. A family relationship between this cabinet model and the table model has been achieved through the

application of two vertical panels to the top front surface. These panels will be the counterparts of the Wood Veneer panels mounted on the sides of the table model. These panels will have their front surfaces flush with the front surface of the control panel. Charcoal brown sheet metal surfaces will form a background for these wood panels. The panels themselves are set forward so as to appear to float on the dark area. Clearance will be provided behind and around the edges of these wood panels so that they will serve as handles for withdrawing the processor unit from the cabinet. The amount of space around these panels and above these panels has been established with Scott and are critical to best improve what are too tall and narrow proportions of the cabinet.

A continuing effort must be made to assure that the engineering concept, high quality of materials and the refinement of cabinetry detail as well as high quality of finish and color selection is carried through into production. This would all be done in the direction of what I think is an excellent chance to achieve a design award.

NEXT VISITATION: As suggested by Scott will be about the middle of November and I have tentatively scheduled the 19th (Thursday)

END OF REPORT

Paul Rawson, ASID
Vice President/Design

PR:m



OFFICE OF
DEAN OF ENGINEERING

October 27, 1964

Mr. Kenneth H. Olsen, President
Digital Equipment Corporation
Maynard, Massachusetts

Dear Mr. Olsen:

Thank you for your letter of October 21, written on behalf of Jack B. Dennis, who has been recommended for promotion to Associate Professor by his department head.

I appreciate very much having your frank comments and know they will be helpful.

Sincerely yours,

Gordon S. Brown, Dean
School of Engineering

GSB:abs

national EXECUTIVE flight service

LOGAN INTERNATIONAL AIRPORT, GATE 22, EAST BOSTON 28, MASS., 569-3040

23 October 1964

Mr. Kenneth Olson, President
Digital Equipment Inc.
146 Main Street
Maynard, Massachusetts

Dear Mr. Olson:

In reviewing our operations today I noted with interest that your company had engaged one of our airplanes for the day. Sometime ago, I talked to several individuals in your company about the advantage of utilizing small corporation aircraft. Since that time we have developed for corporations your size, a flying contract package deal. This, in essence, enables a company to purchase from us a block of time to be used up within a twelve-month period with a substantial discount from our normal charges. Furthermore, the plan offers reductions in the extra charges normally associated with the chartered airplane, such as wait time etc.

Raytheon Corporation and the Brand Rex Division of American Enka Corporation are using this plan to great advantage. I am sure that Mr. O'Neil, Director of Material at Raytheon, and Mr. Robert Rodday, General Manager of Brand Rex, would be most pleased to give their comments not only on the value of our service to them but also the quality.

I understand through an associate of ours, Mr. J. McDevitt, that your company is considering the lease of an airplane on a long term basis. This I consider an excellent idea. However, our plan would offer you the opportunity to test the value of such an acquisition without anywhere near the investment and obligation called for by Mr. McDevitt's plan. Furthermore, we would be able to provide an aircraft with far greater operating capabilities in the New England winter weather. Should you wish to discuss the details of our service at greater length, would you please get in touch with our president, Mr. J. C. Whitney, as I expect to be out of town for an indefinite period of time?

Looking forward to hearing from you, I am

Sincerely yours,

Nelson B. Lee Jr.

Nelson B. Lee Jr.
Vice President

NBL:cb

Friden, Inc.

requests the pleasure of your company

at a

COCKTAIL RECEPTION

during the annual

BUSINESS EQUIPMENT MANUFACTURERS EXPOSITION

Tuesday evening, October twentieth

nineteen hundred and sixty-four

VENETIAN ROOM

Ambassador Hotel

Los Angeles, California

ansd rs
10/15 sh

R. S. V. P.

SEVEN O'CLOCK



The National
Shawmut Bank
of Boston

October 20, 1964

Mr. Kenneth H. Olson, President
Digital Equipment Corporation
146 Main Street
Maynard, Massachusetts

Dear Ken:

My associates and I wish to express our extreme appreciation for having us out to Digital Equipment. We all thoroughly enjoyed learning about the new developments at Digital and are much impressed with the activity that is going on in new areas.

The luncheon was superb, as usual. Thank you for your very warm hospitality, and for the great deal of time that you all spent with us.

Very truly yours,

Lincoln E. Barber, Jr.
Assistant Vice President

LEB/jvk

Systems Research
SRL LABORATORIES, INC.

500 WOODS DRIVE
DAYTON, OHIO 45432
(513) 426-4051

October 16, 1964

Mr. Ken Olsen
Digital Equipment Corporation
Maynard, Massachusetts

Dear Mr. Olsen:

DECUS is shocked to learn of the resignation of Mrs. Elsa Newman as DEC representative. Mrs. Newman has been DECUS' greatest asset since the Society began. We wonder at the haste with which the actions of the past week were undertaken. DEC representatives have answered me that DEC wishes to continue support of DECUS; this action, taken without thought as to Mrs. Newman's replacement is not one conducive to good DEC-DECUS relations.

Because DEC has acted with such haste, DECUS now urges DEC to search out a candidate to fill Mrs. Newman's post without delay. We trust that the selection of the individual who replaces Mrs. Newman will be done in cooperation with the wishes of the DECUS board.

There is much hard-feeling and embarrassment at this time concerning these matters. It is not for the good of DECUS or DEC that any action should cause such anxiety and concern. DECUS is willing to cooperate in every way in building on the foundation we now have toward a stronger user's society. We are trusting in the good faith of DEC, and trust that in the near future we may again progress toward the goals set down in our by-laws, rather than in rebuilding the society.

Sincerely,

William A. Fahle

William A. Fahle
DECUS President

ms

FARRINGTON MANUFACTURING COMPANY
850 THIRD AVENUE, NEW YORK, N. Y. 10022

OFFICE OF
PRESIDENT

TELEPHONE
212 HA 1-2255

October 14, 1964

Mr. Kenneth H. Olsen
President
Digital Equipment Corporation
146 Main Street
Maynard, Massachusetts

Dear Mr. Olsen:

I am sure that you are aware of Business Equipment Week which begins October 19th in Los Angeles. You have already been invited to an informal get-together of the principal officers of companies in our industry.

However, I want to extend a personal invitation to you to be our guest at the BEMA luncheons. Also, the Data Processing Group General Meeting at 2:30 Wednesday afternoon and the BEMA Annual Meeting at 9:30 Thursday morning will be particularly interesting to you because of your own activity in our industry. The BEMA luncheons on Tuesday, Wednesday and Thursday each feature well-known speakers discussing subjects of broad and timely interest which I know you will find enjoyable.

All of the meetings and luncheons are scheduled for the Ambassador Hotel. We will be stopping at the Ambassador and hope you will call me so that we can make arrangements for you to attend some or all of these events.

Incidentally, I thought you would enjoy seeing the enclosed list of New Products to be introduced at the Exposition.

Sincerely yours,

Ralph H. DeRubbo
Chairman, Membership Committee
Data Processing Group

Encs.

NEW PRODUCTS SCHEDULED FOR INTRODUCTION AT THE 1964 BUSINESS EQUIPMENT EXPOSITION

COMPANY	PRODUCTS
ADDO-X INCORPORATED	CARD PROGRAMMED PAPER TAPE PUNCH, DRY COPIER
ADDRESSOGRAPH MULTIGRAPH CORPORATION	PORTABLE ADDRESSOGRAPH MACHINE, MULTILITH MODEL 1850
AMERICAN TELEPHONE & TELEGRAPH	ELECTRONIC SWITCHING
ANSAFONE CORPORATION	WRITE-ON DICTATING UNIT, TELETIMER, PHONE METER
BANKERS BOX COMPANY	TANDEM STORAGE FILES
CHARLES BRUNING COMPANY	AUTOMATIC DIAZO COPYING MACHINE
EXECUTONE, INCORPORATED	POCKET PAGE COMBINED WITH INTERCOM SYSTEM, 200 SERIES INTERCOM
FARRINGTON MANUFACTURING CO.	HANDWRITTEN DIGIT READER, ELECTRIC TICKET WRITER, 51/80 COLUMN IMPRINTER, MODEL 924, DATA WRITING SYSTEMS, KEYBOARD CONTROLLED EMBOSSER MODEL 630, PRODUCTION CONTROL DATA WRITER MODEL 110
FRIDEN INCORPORATED	NEW TENKEY ADDING MACHINE, 5010 COMPUTYPER
THE GENERAL FIREPROOFING CO.	ACCENT CHAIR LINE, STYLE 9000 FILES, OVER FILE, GF 40-4 CHAIRS
GESTETNER CORPORATION OF CALIFORNIA	ELECTRONIC STENCIL MAKER
IBM	SYSTEM/360, MODEL 40 COMPUTER
FI-CORD INTERNATIONAL	PORTABLE DICTATING UNIT
MASTER ADDRESSER COMPANY	MODEL 460 ELECTRIC ADDRESSING MACHINE
MONROE INTERNATIONAL, INC.	MONRO-MATIC PC 1421 PRINTING CALCULATOR

NEW PRODUCTS SCHEDULED FOR INTRODUCTION
AT THE 1964 BUSINESS EQUIPMENT EXPOSITION

COMPANY	PRODUCTS
COLE STEEL EQUIPMENT COMPANY	TRANSISTORIZED DICTATING MACHINE
A. KIMBALL COMPANY	LABEL-PRINTING DEVICE, HIGH-SPEED TAG READER
THE NATIONAL CASH REGISTER CO.	CLASS 53 SALES REGISTER, CLASS 190 CAFETERIA CHECKOUT MACHINE
A. B. DICK COMPANY	TEN NEW OFFSET MACHINES, MODEL 525 STENCIL PRINTER
OXFORD FILING SUPPLY CO., INC.	LETTERHEAD FILING CABINETS
PACIFIC COPY CORPORATION	TRANSISTORIZED PHOTOCOPY MACHINE, ILFOPRINT SYSTEM
PITNEY-BOWES, INCORPORATED	MODEL 3130 INSERTER, DESK-TOP ADDRESSER-PRINTER
POLYFAX, INCORPORATED	NEW COPYING MACHINES
RECORDAK CORPORATION	PORTABLE FILM READER, PROSTAR FILM PROCESSOR, FILMCARD READER, PLATE PROCESSOR
SCRIPTOMATIC, INCORPORATED	AUTOMATIC ADDRESSING MACHINES
SUPREME STEEL EQUIPMENT CORP.	ROLL-OUT FILE, TWO ROW FILES
TIFFANY STAND CO., INC.	6800 SERIES OFFICE MACHINE STANDS
VICTOR COMPTOMETER CORPORATION	IMPERIAL ADDING MACHINE, DIGIT-MATIC, LOW POWER PRINTER
VISIRECORD, INCORPORATED	"ONE WRITE" SYSTEMS BOARD, AUTOMATION TAPE TRAYS, NEW TRAY UNITS
WRIGHT LINE	1440 DISK PACKS, CARD HANDLING FILES
XEROX CORPORATION	HIGH-SPEED DOCUMENT REPRODUCTION DEVICE

CONTROL DATA
CORPORATION
8100 34TH AVENUE SOUTH • MINNEAPOLIS, MINNESOTA 55420 • 888-5555

October 9, 1964

Mr. Kenneth H. Olsen
Digital Equipment Corporation
Main Street
Maynard, Massachusetts

Dear Mr. Olsen:

The time that you spent in the past week telling me about your company, your products and future plans was greatly appreciated.

I have informed Mr. Norris of my visit with you and the fine things you are doing in your company. He wishes me to extend to you his wholehearted welcome to visit Control Data and review the things we are doing and also to take a look at some of our peripheral equipment developments, so as you plan your new product lines you may find mutual benefits and goals between our peripheral equipment and your cpu's.

Again may I take this opportunity to thank you for the time you spent with me, and I am looking forward to discussing the future of the computer industry with you here in Minneapolis.

Very truly yours,

E. E. Strickland
Vice President-International Development

EES:lu

Ken

I think we've done all that can be done on this one.

Bob

BOLT BERANEK AND NEWMAN INC
CONSULTING DEVELOPMENT RESEARCH

50 MOULTON STREET
CAMBRIDGE 38, MASSACHUSETTS
TELEPHONE 491-1850

7 October 1964

Mr. Ken Olsen, President
Digital Equipment Corporation
Maynard, Massachusetts

Dear Ken:

I have heard that DEC has asked Elsa Newman to resign. This action comes as a great surprise to those of us who have been working with DECUS for the past few years. As you know, Ed Fredkin repeatedly raised the question of autonomy for DECUS during his term of office as DECUS President. When I took over the presidency, I purposely side-stepped this issue in the belief that formal mechanisms to insure DECUS autonomy were not necessary since the people at DEC and those serving on DECUS could intelligently discuss any problem and arrive at an amicable solution. However, this has not turned out to be the case. I have been told that DEC fired Elsa for the good of DECUS. But the fact is clear that this action was taken without consultation with any of the DECUS officers. Neither I, as outgoing DECUS president, nor Bill Fahle, as incoming president, received any communication about this problem. In fact, it appears on the surface that DEC took this action at a time when the DECUS presidency was in a state of transition. All of the past presidents of DECUS, Charlton Walters, Ed Fredkin, and I, intend to support Bill Fahle in insisting that the DECUS membership determine its own officers, including its secretary. Last month, Elsa Newman was elected to a new term in her present office. Unless the DECUS delegates take some contrary action, consistent with the by-laws, or unless Elsa voluntarily resigns her post, she is still our secretary.

Of course, DECUS has no right, nor any desire, to interfere with DEC's personnel policy. However in this case, the timing and the taking of this action without consultation with DECUS forces me to lodge a strong protest. I am not going to deny that Elsa has her own individual faults, just as we all do. But, the faults that she has can be traced to her being over-energetic and over-dedicated to her job and to the welfare of both DECUS and DEC.

Whatever these faults may be, Elsa is a remarkable women who has given a great deal of herself to the success of DECUS. She has insured continuity of service by DECUS to its members for the past three years when many of the rest of us were too busy to fulfill our own DECUS responsibilities. Perhaps our fault has been in not letting you know before this how valuable Elsa was to DECUS. In any case, Elsa deserves a better reward for her service to DECUS.

I hope you will be able to look into this problem and remedy the difficulty.

Respectfully yours,

Lew Clapp

Lewis C. Clapp
Outgoing DECUS President

LCC:sh
cc: William Fahle, Decus President
System Research Laboratories
Dayton, Ohio

digital EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

Sent copies to Dick Best and Maynard Sandler on 10/13 and asked them what to do about it.

Burt Sweeney has taken care of the problem
11/4/64

DATA TRENDS, INC.

1259 RT. 46, PARSIPPANY, N. J. 07054
TEL. 201-334-1515

7 October 1964

Mr. Kenneth Olsen, President
Digital Equipment Corporation
Maynard, Massachusetts

Dear Ken:

We have recently run into a card module delivery problem which I thought I would bring to your attention, because of our large impending Flip Chip module order now placed with DEC. We recently ordered about $3,000 to $4,000 worth of your 4000 series cards (DTI P. O. 3785A) required for an Army contract we were performing, and, as generally indicated by various DEC people, allowed two weeks delivery. As it turned out, complete delivery of these cards required five weeks. In this case, the delay was serious, and we had to ask for a delay in delivery from our customer (see attached letter). This is the first case in our short corporate history in which we have missed a delivery.

I am writing not entirely because of the above, but because of our commitments in delivering a fairly large real-time system for the New York Racing Association. As you may know, we performed a rather exhaustive study of various card lines and chose DEC's new module series (Flip-Chip), for which we've now placed a $70,000 standing order (DTI P. O. 3785). Part of the consideration here were DEC statements promising two week delivery, upon which we have scheduled our work. In this case, customer dissatisfaction is not our chief concern, but rather a $10,000 per day penalty clause of late delivery (a copy of that page of the contract is also attached).

Generally, a few days will not bother us providing we have been informed in advance of late deliveries. I have set up a procedure with Dave Denniston for monitoring deliveries hoping to insure such information. If there are any delivery problems from your end which would be helpful to me in my planning, I would appreciate knowing about them.

With best regards,

Bill

W. H. Highleyman
Technical Director

WHH:jag
Attachments
c.c. Messrs. D. Denniston (DEC)
R. W. Hughes

1 October 1964

Mr. Vilaro, Buyer
Procurement Office
U.S. Army Research & Development Laboratory
Fort Monmouth, New Jersey

Dear Mr. Vilaro:

When I last spoke with you, you mentioned that if there should be a change in our delivery schedule of the Hand Print Optical Scanner, I should inform you at the earliest possible moment.

Due to the inability of some of our parts suppliers to deliver elements of the scanner as scheduled, we are somewhat doubtful that the October 21st date can be met. We are continuing our activity as rapidly as possible, in hopes of still being able to meet this date but I thought it might be wise to notify you of the possibility of slippage to the extent of one month.

From our viewpoint and from the work we have done thus far, we are quite satisfied with the progress we are making in the design and intent. We will keep you informed as to our progress and hope we will still be able to meet the October 21st date. Since I will be out of town much of the time between now and then, you may contact Dr. W. H. Highleyman, our Technical Director, concerning any phase of this activity.

Very truly yours,

Donald W. Spreen
Director of Marketing

DWS/fmw
cc: Mr. Henry Burkhard
Chief of Subscriber Equipment
bcc: Dr. W. H. Highleyman

shall be delivered to Aqueduct not later than December 20, 1965. DTI agrees that it shall cause the entire system to be available for testing and operation not later than February 1, 1966, provided that two of the Honeywell computers are delivered and in wording condition by January 1, 1966, and a third Honeywell computer is delivered and in working condition by January 10, 1966, and further provided that all board equipment and associated cabling is delivered and in working condition by January 10, 1966, and that (including associated cabling) 100 ticket issuing machines are installed and in working condition by January 10, 1966; 300 ticket issuing machines are installed and in working condition by January 15, 1966; and 550 ticket issuing machines are installed and in working condition by January 20, 1966.

If DTI shall fail to cause the entire system to be available for testing and operation as provided in the preceding paragraph on or before February 8, 1966, DTI will,

unless Automatic shall elect to terminate this agreement as permitted under paragraph 8, pay to Automatic a penalty in the amount of $10,000. per day for each day after February 1, 1966, that the entire system is not so available, excluding, however, days during which the delay resulted from causes for which DTI is not liable under paragraph 10, provided that such penalty shall not exceed $350,000. Such penalty shall be without prejudice to any other rights and remedies of Automatic.

6. The purchase price shall be payable as follows:

(a) Within ten (10) days from the date hereof, Automatic shall advance to DTI the sum of $50,000.

(b) Thereafter Automatic shall pay to DTI monthly five (5) days after demand therefor, ninety (90%) per cent of the dollar amount certified by DTI to represent its actual out-of-pocket expenses for labor and materials furnished during the preceding month; provided, however, that DTI's demand for payment shall in each case be accompanied by a certificate signed by an authorized

CONTACT REPORT

BY POR/ctk 10/8/64

CLIENT: Digital Equipment Corporation

DATE OF CONTACT: 7 October 1964

TYPE OF CONTACT: Visit to plant by Paul Rawson

DISTRIBUTION: Ken Olson, Loren Prentice, Scott Miller, KVD, POR CLIP, FILE

PROPOSED AGENDA FOR NEXT MEETING

580 TAPE TRANSPORT

Scott agrees to send layout of this product to me, indicating appearance details including colors and materials, as he prepares it. I believe door frame could be reworked to better appearance.

CORPORATE IDENTITY:

I would very much appreciate the chance to bring to DEC VDA's Manager of Graphics to sit with Ken Olson in a discussion of corporate identity and trademark in particular.

PDP-8 (PDP-5A):

The profound effect which this product can have on Digital's business calls for major industrial design consideration to assure an optimum solution. Assuming that the present concept (horizontal panel under two on-edge units) is the one to which we are committed, and it looks excellent to me, I recommend the following:

	BUDGET REQUIRED *	DELIVERY DATE
1. I sit with Scott as soon as he has three view rough mech. layout of concept.	$ 160.	?
2. One of my designers and myself would then spend three days (6 man days) preparing 6-8 sketch renderings, perspective sketches in accurate proportions, with indication of color and finishes, for presentation to Digital Management.	$ 832.	?
3. At this meeting some sketch modifications would be made on the spot to guide VDA modelmakers in the preparation of three wood, cardboard and paper three dimensional mockups. These to manifest the three best designs per concensus of the foregoing meeting.	$ 160.	?
4. Models to be prepared for presentation at DEC for Management review and decision making.	$ 920.	?
	$2072.	
5. Further design, engineering or sheet metal drafting could then be undertaken by VDA in such manner as would best assist DEC in this new business area.	?	

* Plus Out of Pocket Expenses

END REPORT

Paul

Paul Rawson, ASID
V.P./DESIGN - VAN DYCK ASSOCIATES

H. H. SCOTT, INC.

Kenneth H. Olsen, President
Digital Equipment Corporation
146 Main Street
Maynard, Mass.

October 8, 1964

Dear Mr. Olsen:

Recently I wrote to you, asking for a contribution to the Special Projects Campaign of the National Conference of Christians and Jews, so that we can develop educational programs of depth and duration for youth, parents and teachers over the coming year. Enclosed is a newspaper clipping illustrative of one of the many current programs in depth being conducted by the Conference in this area.

It has been "a long hot summer" in many respects in the human relations field. Never has there been greater need for an organization such as the National Conference of Christians and Jews. The necessity for education, persuasion, mediation and conciliation is apparent in every headline.

Your financial support is needed to carry on the program. The problems we face are national. Every Region of NCCJ faces these human relations problems in some form. Your help will insure that the changes which are occurring will take place peacefully and constructively. I hope you will want to contribute at least $100 with, of course, larger or smaller gifts being gratefully accepted.

Please send your check, made out to NCCJ, to me as soon as convenient. Remember, your gift goes to the support of a program with impact on a great number of people in this region. It is fully tax-deductible.

Sincerely yours,

H. H. Scott
NCCJ Special Projects

HHS/bds
enc.

111 POWDER MILL ROAD • MAYNARD, MASSACHUSETTS • TWIN OAKS 7-8801 • CABLE HI-FI
01754

Young Campers Study Brotherhood



BROTHERHOOD THEIR GOAL — Arriving home from Third Annual Brotherhood Youth Institute at Camp Tel Noar, N. H. was this busload of high school youngsters—photographed as they stopped by Herald-Traveler building yesterday.

Youths Thrash Out Bigotry Problems

For some 60 Massachusetts high school students brotherhood is more than just a pretty word. For them, brotherhood has been the subject of a heated five days full of argument, close analysis, psychological experiment and the major key to the way they plan to lead their lives.

These youngsters, plus some 50 others from New York, New Jersey and the other New England states, arrived home yesterday after an unusual five-day brotherhood institute at Camp Tel Noar in East Hampstead, N.H.

At the camp, which is run by the National Conference of Christians and Jews, the youngsters had a chance to thrash out in complete frankness such things as the sources, problems and means of dealing with bigotry.

They had the opportunity to hear — and question — speakers such as Thomas Eisenstadt of the Boston School Committee; Atty. Richard Banks, vice president of the NAACP; Gordon Hall, lecturer on extremist groups; J. Westbrook McPherson, director of the Urban League, and a variety of religious and education leaders.

(Continued on Page Twelve)

Youths Study Brotherhood

(Continued from First Page)

The students, of different races, creeds, colors and backgrounds, summed up the experience in a variety of ways.

To Norma Holden of Hyannis it brought hope—"hope that some day soon the same brotherhood, the same eternal bonfire which is at Camp Tel Noar will burn throughout the world."

To Betsy Dahlin of Northborough it presented a direct challenge to "the teen-agers of today . . . to become educated to the problems of racial and religious prejudice, to work together, black and white, Christian and Jew, to tear down the walls of fear and prejudice in our world forever.

"The idealism of American youth," she said, "has kindled a spark in the more conservative adults."

BOSTON HERALD
AUGUST 29, 1964

BEAR, STEARNS & CO.
MEMBERS NEW YORK STOCK EXCHANGE
ONE WALL STREET
NEW YORK 5, N.Y.

September 18, 1964

Mr. Kenneth H. Olsen
President
Digital Equipment Corporation
Maynard, Massachusetts

Dear Ken:

I thought it might be helpful to you if I recapitulate the situation at Benson-Lehner for your consideration.

Almost all of the assets of Benson-Lehner have been sold for $1.7 million in cash to the United Gas Corporation. The Benson-Lehner Corporation's assets, therefore, now consist of this cash. The Corporation is owned by approximately 1,500 stockholders who own the approximate 400,000 shares outstanding.

If you are interested in obtaining cash and/or in creating a public market for your stock, it should be relatively simple to combine Digital Equipment with Benson-Lehner in some manner so that you could acquire the cash asset and the stockholders. If $ 1.7 million is more money than you need, some of the cash could be distributed to the stockholders before the combination is concluded. I would think that such a combination would be relatively easy from a time standpoint since the only major consideration would be that of determining values. Lawyers could decide on the best form of the combination, which, I am sure, could readily be effected.

I look forward to hearing from you if you would like to proceed.

My very best regards.

Sincerely,

Melvin J. Gardner

MJG:mj

Dear Ken,

Thank you for your kind invitation to the D.E.C. outing - the children really enjoy the parties so much. I regret that we didn't get back from our vacation until too late to come.

I took the Children to Mexico for two months. We had a marvelous time + all learned a little Spanish, even Sarah. Actually we were in Mexico a little over 3 weeks + visited relatives down the East coast + up the West coast of the US the rest of the time. I drove 15,000 miles - a shocking fact in itself - but we had a fine

time.

I look forward to seeing you soon.

Thank you again for thinking of us.

Sincerely,

Betty Gurley

September 17, 1964

M.Rand, P.E.

12 Sherwood Dr.
Bedford,Mass.

8.Sep. 64

Kenneth H. Olsen Esq.
President
Digital Equipment Corporation
Maynard,Mass.

Dear Mr. Olsen.

Pursuant to our talks of last week I enclose herewith an ad which I found in the journal of the Dansih Professional Engineers.As you will recognise without ranslation IBM is operating there and if IBM can make a living anybody else managing things properly can also find a place in the trade.

I am trying to see whether I can raise some money for a trip through American-Scandinavian Foundation or similar bodies which promotes trade between these two trading areas.In addition I have written to my connections over there and expect to here from them within 2 weeks.I shall also see what I can find out by contacting the embassy in Washington of each of the 3 countries.

At a later date I shall be glad to let you know what I have learned which will benfit us both.

Yours veru truly

M Rand

File

H. H. SCOTT, INC.

Kenneth H. Olsen, President
Digital Equipment Corporation
146 Main Street
Maynard, Mass.

August 31, 1964

Dear Mr. Olsen:

I am honored to have the opportunity of serving on the Special Projects Team of the National Conference of Christians and Jews in its 1964 Campaign. It is the generous contributions in these campaigns which have made possible the many group meetings and seminars, the clergy dialogues, the police-community institutes, the teacher institutes, the youth conferences (high school and college level), the distribution of NCCJ literature, and the continuation of the year-round educational program.

The recognized work of this great human relations organization has thus been able to carry on for thirty-six years in combatting racial and religious tensions by promoting closer understanding and cooperation among Protestants, Catholics and Jews.

The Conference Directors have expressed the hope that each contributor will see fit to give at least $100.00, but I would not be so presumptuous as to suggest any given amount whatsoever, and I can honestly say to you that any contribution whatsoever will be most gratefully received.

All contributions are tax deductible and will be credited to the work of the Conference in this area. Checks should be made payable to the National Conference of Christians and Jews, and may be forwarded to me.

Please accept my thanks for your kind consideration and financial assistance.

Sincerely yours,

H. H. Scott
NCCJ Special Projects

HHS/bds

111 POWDER MILL ROAD • MAYNARD, MASSACHUSETTS • TWIN OAKS 7-8801 • CABLE HI-FI
01754

Teradyne, Inc.
ELECTRONICS FOR INDUSTRY
87 Summer Street, Boston, Massachusetts 02110
Area Code 617 HA 6-6560 TWX 617-451-3803

August 25, 1964

Mr. Ken Olsen
Digital Equipment Corp.
Main St.
Maynard, Mass.

Dear Ken:

I thought that you might be interested in our new baby!

Sincerely,

TERADYNE, INC.

Nick

Nicholas DeWolf

NDeW/fdb
enc. (1)
Scanner Broch.

Catalog sent to catalog file
sh

XEROX
CORPORATION

August 14, 1964

Mr. Kenneth H. Olsen
Digital Equipment Corporation
Maynard, Massachusetts

Dear Mr. Olsen:

Thank you for your letter of July 31 and for the reprint which you sent with it. It looks interesting and I plan to look into it in more detail.

Mr. Elliot Woodhull is planning to contact you about possible subcontracting of some of our electronic items, and I assume that you will hear from him shortly.

It was good to have the opportunity of getting acquainted with you recently, and we shall look forward to further contacts in the future.

Sincerely,

John

John Dessauer
Executive Vice President

JD:hh

DI/AN CONTROLS, INC.
944 DORCHESTER AVENUE, BOSTON 25, MASS. • PHONE: 288-7700, TWX: 617-288-5963
magnetic digital/analog systems and components

August 12, 1964

Mr. Ken Olson - President
Digital Equipment Corporation
Maynard, Massachusetts 01754

Dear Ken:

I find that I cannot reach you because you're on vacation. I have something which may be of great interest to DEC, and since I am going to be on vacation for the next two weeks, I want to transmit some preliminary information to you in this letter and try to contact you during the first week in September.

Di/An has designed and is producing an Impact Printer in the lister category. This unit provides speeds of 2400 lines per minute, 32 columns, and both numeric and alpha-numeric printing. This unit is head and shoulders in product design and manufacturing quality over anything presently available. We have eliminated the mechanical problems of daily adjustment, high-cost ribbons, and poor print quality.

The print quality of this Di/An product is suitable for optical character recognition reading and sets new high standards in the industry.

We plan to make our formal announcement of this product at the Computer Show in October. At that time, we will have had a prototype machine running for over one year and three pre-production units running for various portions of a year. Thus, we have conducted a program of life testing and product improvement prior to release for manufacture. Not so incidentally, the engineering team behind the mechanical portion of this printer has been in the computer peripheral equipment field since 1946. They have designed and put into manufacture a variety of other printers including

full-page printers of 1200 lines per minute speed.

I believe this product could find wide usage by your customers in conjunction with your several computers.

Enclosed is a preliminary brochure which will give you additional facts.

Very truly yours,

DI/AN CONTROLS, INC.

Bob Kodis

Robert D. Kodis
President

RDK/emr

encl: Brochure (Numeric Lister)



The National
Shawmut Bank
of Boston

August 11, 1964

Mr. Kenneth H. Olsen, President
Digital Equipment Corporation
146 Main Street
Maynard, Massachusetts

Dear Ken:

While scanning through yesterday's Electronic News, I noticed three articles on Digital Equipment. In case you haven't seen them yourself, please find copies enclosed.

With respect to the English and Swedish announcements, I merely wish to again emphasize that if there is anything we can do for you through our International Banking Department, we are at all times at your disposal. We have already had the privilege of serving DEC in several countries, and I hope these will be added to the growing list.

While talking with Andy last week I learned that fiscal 1964 was a good year. May I extend my congratulations and hope that 1965 will be equally prosperous.

Very truly yours,

Lincoln E. Barber, Jr.
Assistant Vice President

LEB/mmw

Enclosure

Digital Builds Display System For Army Test Use

MAYNARD, Mass. — A general purpose experimental display system has been built by Digital Equipment Corp., here, for the Army Electronics Command, Fort Monmouth, N. J.

The system is based on PDP-4 computer and precision incremental display Type 340. It can display and modify information generated by a second computer, or it can function independently.

The information appears on a 17-inch cathode ray tube as dots, lines, curves, characters or shapes. The operator can generate new information or modify that already in memory with push buttons, knobs, a typewriter keyboard and a rotating ball added to the display console.

The new controls can execute a variety of functions, depending on the roles assigned to them by the operating program being used in the computers.

The rotating ball can turn indefinitely in any direction, greatly extending the movement capabilities of joysticks and other lever-like devices used earlier with displays. The keyboard permits the operator to feed in text without returning to the PDP-4 console typewriter.

Changes to the Type 340 logic extend its subrouting capability, permitting a subroutine hierarchy to define pictures in much the same way that subroutine hierarchy of a programming system would function on a general-purpose computer.

For the system, the PDP-4 includes an 8,192-word, 18-bit core memory, 300-character-per-second perforated tape reader, high speed data multiplexer, address and save registers for display and control and status circuits for the interface with a second computer.

Swedish Rep Appointed

MAYNARD, Mass. — Digital Equipment Corp. has named Telare AB, Industrigatan 4, Stockholm K, Sweden, as representative for its line of computers, circuit modules and special systems.

Digital Equipment Forms UK Sales Subsidiary

MAYNARD, Mass. — Digital Equipment Corp., computer manufacturer here, has established a United Kingdom subsidiary in Berkshire, England.

The company said the new affiliate will handle sales and service of the Digital line of computers, circuit modules and special systems throughout the United Kingdom.

It is the fourth foreign subsidiary formed by Digital in the past 18 months. Digital Equipment of Canada, Ottawa, and Digital Equipment GmbH, Munich, were established in 1963. Digital Equipment Australia Pty., Ltd., with headquarters in North Sydney, was organized earlier this year.

THE FOXBORO COMPANY

DIGITAL SYSTEMS DIVISION
21 STRATHMORE ROAD
NATICK, MASS. 01762
TEL. 653-5660

August 6, 1964

Mr. Kenneth H. Olsen
President
Digital Equipment Corporation
Maynard, Massachusetts

Dear Ken:

We are most appreciative of the time and effort contributed by your Messrs. Wilson and DeCastro to instruct our people about your computers. Their presentations were good and well received and should go far in making our future working relationship more efficient through greater depth of knowledge here.

With best personal regards,

Dick

R. W. Sonnenfeldt
General Manager

jh

cc: E. DeCastro
R. Wilson
W. W. Frymoyer
M. S. Levine

FOXBORO
Instrumentation

TECHNOLOGICAL RESEARCH ASSOCIATES
75 E. 55 STREET NEW YORK, N. Y. 10022 PL 2-1940

August 5, 1964

Mr. Kenneth Olsen, President
Digital Equipment Corporation
Maynard, Mass.

Dear Mr. Olsen:

Thank you very much for your courtesy and time extended to me during my visit to your plant last week.

I found your company a very exciting one. We would appreciate being put on your mailing list to receive future announcements.

In spite of your reluctance, I look forward to the day when I will be able to buy DEC stock directly.

Very truly yours,

TECHNOLOGICAL RESEARCH ASSOCIATES

RIR:np

THE MITRE CORPORATION

BEDFORD, MASSACHUSETTS

4 August 1964

Mr. Kenneth H. Olsen
President
Digital Equipment Corporation
146 Main Street
Maynard, Massachusetts

Dear Mr. Olsen:

We are pleased that you will be at The Homestead in November to join us for the Second Congress on the Information System Sciences.

Since Dr. Bennett is out of town, I am sending you the reservation forms which should be returned at your earliest convenience.

Cordially yours,

Joseph Spiegel
Program Chairman
Second Congress on the
Information System Sciences

JS:eag

Enclosures: Application for Hotel Reservations
Application for Train Reservation
Addenda to Preliminary Program

INSTITUT EUROPÉEN
D'ADMINISTRATION DES AFFAIRES

PALAIS DE FONTAINEBLEAU (S.-&-M.)
TÉL. : 931.25.39
931.44.27

August 4, 1964

gb:

Mr. Kenneth H. O l s e n
President
DIGITAL Equipment Corp.
M A Y N A R D / Mass.

Dear Mr. Olsen:

In the absence of Mr. Olivier GISCARD d'ESTAING, we thank you for your letter of July 17, 1964, and for the attached check No. 45470, on the Shawmut Bank, Boston, in the amount of $50.-, as a contribution of your Company to our Institute, at the suggestion of Mr. Arnaud de Vitry.

We want to thank you very warmly for this kind and helpful support, which enables us to train young men to be of better service to our international business community.

Sincerely yours,

G. Belloy

secretary to
Mr. Olivier GISCARD d'ESTAING
General Director

XEROX
CORPORATION

July 31, 1964

Mr. Kenneth H. Olsen
President
Digital Equipment Corporation
Maynard, Massachusetts

Dear Ken:

Thank you very much for your gracious letter of July 28. We, too, enjoyed very much your visit to Rochester last Friday.

We shall be contacting you very promptly regarding some of our needs which we discussed with you. Dr. Dessauer will contact you directly to arrange for a visit of some of our Research and Engineering people.

We very much appreciated your taking the time to spend a full day with us last Friday here in Rochester.

Sincerely,

Peter

CPMcColough
dap

File

AEL DEVELOPMENT AND RESEARCH DIVISION, INC. CONTROLLED AUTOMATIC PROCESSES, EQUIPMENT AND MACHINES

Subsidiary of Automation Engineering Laboratory, Incorporated

84 Commerce Road, Stamford, Connecticut—DAvis 3-1101

July 24, 1964

Mr. Kenneth Olsen, President
Digital Equipment Corporation
1461 Main Street
Maynard, Massachusetts

Dear Mr. Olsen:

Confirming our telephone conversation of this date, I will contact you on September 20 or 21 to set up a meeting at your plant.

As I mentioned to you, all of our engineers have spent their entire professional lives in the development and design of automatic machinery.

Of special interest to you may be the fact that by the time 15% - 20% of the development budget has been spent, our client is able to inspect a full scale, crude, jury rig of the prototype design. This "prove-out" model works at production speeds.

The"prove-out" stage, as you can appreciate, is a significant milestone for the project management, since in most of our projects a great deal of ingenuity and inventiveness is required and this is the first time that these concepts are tried out together as a working system.

Thank you for your interest in A.E.L. and I hope to see you in September.

Sincerely yours,

Louis Soltanoff

Louis Soltanoff
Project Director

LS/md

XEROX
CORPORATION

July 21, 1964

Mr. Kenneth H. Olsen
President
Digital Equipment Corporation
12 Maynard Mill
Maynard, Massachusetts

Dear Mr. Olsen:

As you know, during your coming visit to Xerox we want to do everything we can to see that you have a comprehensive picture of Xerox, including a fair sampling of a number of technical developments which we regard as highly confidential. Some of this information will be disclosed orally and some will result from your inspection of laboratory models and prototypes and your attendance at demonstrations. As you can see, we are planning a busy and, I hope, interesting day on Friday.

Since this information will be disclosed to enable you accurately to assess the total competence of Xerox and to evaluate our company for your own purposes, I would appreciate your assurance and that of Mr. Harlan Anderson that you will guard the information carefully. Accordingly, we are asking your agreement that you will not make any use of the information which you will receive and that you will not disclose it to others except as it may be public or may hereafter become public.

I hope that this will be satisfactory to you, and if it is, we would appreciate it if you and Mr. Anderson would sign the original of this letter and return it to me.

Sincerely,

C Peter McColough

Executive Vice President

CPMcColough:by

Kenneth H. Olsen

Harlan E. Anderson

KENS COPY

KHO file

THE MITRE CORPORATION

BEDFORD, MASSACHUSETTS

15 July 1964

Mr. Kenneth H. Olsen
President
Digital Equipment Corporation
146 Main Street
Maynard, Massachusetts

only is going in place of Ken

Dear Mr. Olsen:

I am pleased to extend this invitation for you to attend the Second Congress on the Information System Sciences. The Congress will be held at The Homestead in Hot Springs, Virginia, November 22 to November 25, 1964. Attendance is by invitation and is limited to 300 members.

Descriptive material enclosed provides information about the technical program of the Congress, accommodations available at The Homestead, and special train service between Washington and Hot Springs.

I would greatly appreciate knowing at your earliest convenience whether or not you will be able to join us. If your plans do permit you to be with us, I will then forward reservation forms for the hotel and for the optional special train.

I sincerely hope that you will be able to attend.

Cordially yours,

Edward M. Bennett

Edward M. Bennett
Department Head
Information Sciences

EMB:lr

Enclosures: Preliminary Program
The Homestead Brochures (2)

STOCK K.O.

informatics inc. 15300 VENTURA BOULEVARD / SHERMAN OAKS / CALIFORNIA 91403 / PHONE 783-7500

July 14, 1964

Kenneth Olsen, President
Digital Equipment Corporation
Maynard,
Massachusetts

Dear Mr. Olsen:

Through the courtesy of two of your people, Ted Johnson and Ronald Coleman, a PDP-5 Computer was made available to us for our family Open House last Saturday. This demonstration was one of the outstanding parts of this event, which was attended by over one hundred and fifty people.

Mr. Coleman, in particular, was most helpful in setting up the computer and in instructing our Miss Anderman in programming and operating the PDP-5.

We consider the PDP-5, with its basic simplicity, built-in display, and other excellent features, to be an outstanding teaching and demonstration machine. During the Open House, the machine was set up and operated by Doug Shaw and Jerry Crawford, Culver City High School students.

Informatics is grateful to DEC for this kind interest and assistance. Thank you very much.

Sincerely,

INFORMATICS INC.

Jackson W. Granholm
Vice President
Technical Communications

rmg/

A BEMIS COMPANY

ADHESIVE ENGINEERING COMPANY

1411 INDUSTRIAL ROAD · SAN CARLOS, CALIFORNIA 94070

PHONE (415) 591-2686 TWX (415) 594-8847

AE-149

TECHNICAL DATA

AEROBOND 3013

Aerobond 3013, Adhesive Film, is a 100% solids glass cloth supported adhesive film, specifically designed for surface to surface bonding applications where a moderate or room temperature cure is desired and where structural strengths are required at operating temperatures up to 180°F. It may be used to bond all conventional materials currently being used in airframe and commercial construction, including most metals and plastics, wood products, etc.

TYPICAL APPLICATIONS

1. Bonding stiffeners to metal structures such as T-sections, hat sections, doublers, etc.
2. Bonding splices on aircraft structures to better distribute stresses.
3. As a seal in a riveted joint to make joint air or water tight.

PRODUCT DESCRIPTION

Color:	Off white.
Carrier:	Glass cloth.
Separator:	Polyethylene on one side, release paper on reverse side.
Roll Size:	Standard roll is 38 inches wide and totals 500 square feet. Partial rolls and narrower widths are also available on a customer order basis.
Weight and Thickness:	Aerobond 3013 is normally supplied in 9 mil thickness - .07 lbs/sq. ft. Other thicknesses are available on request.
Shelf Life:	45 days when stored at -10°F.
Storage Temperature:	-10°F
Working Life:	8 hours at 77°F (sometimes called "open assembly time").
Primer:	Aerobond 3014. The use of the prime is not mandatory but improved properties are obtained with its use, particularly on secondary cleaned surfaces and room temperature cure conditions.

PHYSICAL PROPERTIES OF CURED ADHESIVE

(All tests in accordance with methods of MIL 5090D Type I where applicable)

SHEAR STRENGTH vs. TEMPERATURE at various cure schedules.

Test Temperature °F	-300	-67	≠77	≠160	≠180	≠260
Cure Time And Temperature						
90 minutes at 190°F	2700 psi	3800 psi	4200 psi	2500 psi	1700 psi	650 psi
1 day at 77°F			2200			
3 days at 77°F			3100	700		
7 days at 77°F		3200	3200	900	700	
30 days at 77°F		3400	3900	1200	900	

OPEN ASSEMBLY TIME - Working Life

Values are shear strengths at 77°F test temperature.

Open Assembly Condition	Ten Hrs @ 75°F	Six Hrs @ 75°F	Five Hrs @ 85°F	Four Hrs @ 95°F	Three Hrs @ 105°F
Cure Schedule					
7 days at 75°F		3200 psi			
7 days at 85°F			3000 psi		
7 days at 95°F				3000 psi	
7 days at 105°F					3000 psi
90 mins. at 190°F	3200 psi				

EXPOSURE DATA

Values are shear strengths at 77°F.

Cure Cycle	90 mins. @ 190°F	7 days @ 77°F
Exposure		
30 days in 100% Relative Humidity at 120°F.	3200 psi	2500 psi
30 days Salt Spray at 95°F.	3100 psi	2900 psi
7 days in JP4 (MIL-5-5624) at 77°F.	3500 psi	3000 psi
7 days in Type 3 Hydrocarbon Fluid (MIL-S-3136) at 77°F.	3300 psi	2900 psi
7 days in Skydrol 500A Hydraulic Fluid at 150°F.	3500 psi	3000 psi

PEEL STRENGTH Metal to Metal

Cure Cycle:	3 days @ 77°F	30 days @ 77°F	90 mins. @ 190°F
Peel Strength			
In. lbs./3 in. width	60 - 80	60 - 80	60 - 80

TECHNIQUE OF APPLICATION

Surface Preparation:

All surfaces to be bonded must be thoroughly degreased, cleaned and dried. Plastic surfaces should have residual mold releases removed. Although excellent bonds can be obtained with less complex procedures, recommended cleaning procedure for aluminum bonding for critical applications such as bonding on airframes is as follows:

1. Remove mill oil and inked identification markings from surfaces by wiping with clean toluol soaked rags, following with a second wipe with clean dry rags while the surfaces are still wet. Then degrease all details in trichlorethylene vapor.
2. Next, etch all details for 20 minutes in the following solution maintained at 150°F - 160°F.

   30 parts by weight, distilled or deionized water.
   10 parts by weight, sulfuric acid (1.83 S.C.).
   1 part by weight, sodium dichromate.

3. Spray-rinse all etched details thoroughly in fresh ambient temperature tap water. Then immerse in cold water and repeat spray-rinse.
4. Check for water break and force dry at temperature not to exceed 120°F.

   Note: If water break appears, entire cleaning procedure should be repeated.

Priming:

Aerobond 3014 Primer should be mixed in the proper proportions (1:1 by volume) prior to application to the cleaned faying surfaces. To avoid waste do not mix any more primer than will be used within the allowable working life of approximately eight hours. The mixed primer may be applied in a thin coat by spray, brush, roller, or swab. It will air-dry within five minutes to a very tacky film. After five minutes the surface is ready for adhesive film lay-up.

Lay-up of Aerobond 3013 Adhesive Film

Aerobond 3013, Adhesive Film, should be cut to size and brought to room temperature prior to the removal of the polyethylene separator. It is important that the polyethylene separator remain in place until the film comes up to room temperature to prevent moisture condensation on the adhesive surface. The polyethylene is then removed cleanly from one side of the film with a fast, even jerk. This method is preferred to a slow pull which has a tendency to strip the adhesive resin from the carrier. If necessary, one corner may be chilled with dry ice to facilitate the start. The bare adhesive film is then placed upon one of the primed faying surfaces. The release paper separator is then removed and the assembly is closed. If parts are not in exact position, they can be moved into place.

Aerobond 3013 Con't.

Cure Cycles:

Pressure used should be at least 10 psi to insure good contact, and this pressure need only be maintained for one day even though adhesive has not fully cured. Various cure cycles and post cures can be used depending upon properties desired and bonding facilities available. Cure temperature may range from 70°F to 190°F and cure times may vary from 90 minutes to several days plus postcure. Various cure cycles are listed elsewhere in this bulletin. These are offered as a guide and are subject to modifications that are required by different conditions.

Note: Material exposed up to 10 hours at 75°F and cured 90 minutes at 190°F has the same values as freshly exposed tape.

The information contained in this bulletin is, to the best of our knowledge, true and accurate, but since conditions of use are beyond our control, no warranty is given or implied in respect of such information or to any recommendations or suggestions which may be made, or that such use will not infringe any patent.

Ken Olsen

Westinghouse Electric Corporation

10 High Street
Boston 10, Mass.
Telephone: LIberty 2-0600

* Digital Equipment Corporation
Thompson Street
Maynard, Massachusetts

July 8, 1964

Mr. H. Crouse, Purchasing Agent

Consulting Conference
Week of 7/20/64

Since our conversation late last week, Mr. Muller and Mr. Roach of our Scientific Equipment Department have advised me that Tuesday, July 21 is the most preferable date for them presently available during the week of July 20. Mr. Muller has commitments on Wednesday, July 22 requiring departure from the Boston area late the afternoon of July 21. As discussed, during a telephone conversation late last week, Monday July 20 is impractical from many standpoints, not to mention the fact that several of the participants will have just returned that morning from vacation.

May we plan on Tuesday, July 21 as a firm date barring unavoidable conflicts?

F. S. Crook
Sales Engineer
c

XEROX
CORPORATION

June 26, 1964

Mr. Kenneth H. Olsen
President
Digital Equipment Corporation
12 Maynard Mill
Maynard, Massachusetts

Dear Mr. Olsen:

Thank you for receiving Mr. Wilson, Mr. Wainger, and me so cordially when we visited you last week. We all found our discussions extremely interesting and look forward to continuing them in depth when you visit us here.

I believe we left matters that, after reviewing your calendar commitments, you would give me a call so that we might set up a mutually convenient date for you to visit us here in Rochester. I look forward to hearing from you soon.

With best regards.

Sincerely,

Peter.

Executive Vice President

CPMcColough:by

Mr K H Olsen

June 22, 1964

COPY

Robert A Cesari, Esquire
Blair and Buckles
79 Milk Street
Boston, Massachusetts

Dear Bob:

Thank you for your letter of June 17, 1964. Let me know if I can be of any help in obtaining a copy of the MIT-IBM agreement (past history and market forecasts) on which the settlement was based. I would be pleased to call Dr Floe if our normal channels fail.

Sincerely yours

DIGITAL EQUIPMENT CORPORATION

J P Hastings

JPH:ASJ

Copy to Ken Olsen

BLAIR AND BUCKLES
PATENT AND TRADEMARK COUNSEL
79 MILK STREET
BOSTON, MASS. 02109
482-5161

JOHN C. BLAIR
IRVING U. TOWNSEND, JR.
ROBERT A. BUCKLES
ROBERT A. TOWNSEND
ROBERT A. CESARI
W. HUGO LIEPMANN
JOHN F. McKENNA

STAMFORD OFFICE
500 SUMMER STREET
STAMFORD, CONN.
324-6155

June 17, 1964

Mr. James P. Hastings
Digital Equipment Corporation
Maynard, Massachusetts

Re: Negotiations with MIT - File 83-014

Dear Jim:

I thank you for your letter of June 8 and the enclosures therewith. We now have the information we need in fairly useable form. However, it will be impossible to enter into an agreement with MIT by July 1, 1964. My discussions with R.J. Horne have made it quite evident that they do not yet know what they want in the way of an agreement.

I suspect that they had envisioned a simple royalty bearing license, but as I have pointed out to you and also to them, Digital should not enter into such an agreement unless it provides a mechanism by which the ultimate royalty will come to no more than the price per bit that IBM has to pay. This will take some time to work out.

In this connection, I wish to point out that in our last discussion, Horne made it clear that they had decided not to enter into a lump sum settlement with Digital. He took the position that with Digital being such a small company, its share of the market might well increase by a tremendous amount, resulting in a very small royalty as compared with the price per bit IBM will end up paying. In this connection, I am still trying to obtain from him a copy of the MIT-IBM agreement with the past history and market forecasts on which the settlement was based. If he continues delaying this information we may have to try some other source at MIT, either for more direct access to the information or as a wedge to pry it out of Kenway, Jenney.

In any case, this does not have any direct bearing on the letter to Dick Mills which you requested of me and therefore, I have written a letter setting forth the royalty demands presently made by MIT. He can adjust his reserves accordingly. A copy of the letter is enclosed herewith.

Sincerely,

Bob

Robert A. Cesari

D/p
Enclosure

BLAIR AND BUCKLES
PATENT AND TRADEMARK COUNSEL
79 MILK STREET
BOSTON, MASS. 02109
482-5161

JOHN C. BLAIR
IRVING E. TOWNSEND, JR.
ROBERT A. BUCKLES
ROBERT A. TOWNSEND
ROBERT A. CESARI
W. HUGO LIEPMANN
JOHN F. McKENNA

STAMFORD OFFICE
500 SUMMER STREET
STAMFORD, CONN.
324-6155

June 17, 1964

Mr. Richard Mills
Digital Equipment Corporation
Maynard, Massachusetts

Re: Negotiations for License Under Forrester
Patent No. 2,737,880 - File 83-014

Dear Mr. Mills:

As you probably already know, MIT has reacquired control of the Forrester Patent from Research Corporation and has settled the law suits with RCA and IBM. They are now seeking to license the rest of the industry under this patent and in so doing they have materially reduced the royalty demands from those pressed by Research Corporation.

More specifically, the royalty presently asked by MIT amounts to 1/4 cent per bit through the end of 1961. For units sold after 1961, the rate is 1/7 cent per bit. We understand from them that the IBM suit was settled on this basis and therefore we can expect this to be a firm demand.

Accordingly, in our opinion you should reduce your reserve for liability under the Forrester patent to an amount corresponding to the above running royalty rate.

If you have any questions concerning this matter, do not hesitate to get in touch with me.

Very truly yours,

Robert A. Cesari

Robert A. Cesari

D/p

VETERANS ADMINISTRATION
HOSPITAL
WEST SPRING STREET
WEST HAVEN, CONN. 06516

Original given to Chandler
Mort Ruderman to 6/22/64

June 18, 1964

YOUR FILE REFERENCE:

IN REPLY REFER TO:

Mr. Kenneth Olsen
Digital Equipment Corp.
Maynard, Massachusetts

Dear Mr. Olsen:

I wish to apply for an educational discount on the PDP-8 computer, which I understand you will make as a commercial version of the LINC III. I am moving to the University of Pennsylvania School of Medicine this summer. The computer will be used for research on electrical activity of the human brain. Those working in my laboratory will include residents, medical students, and graduate students. In addition, I am sure that other members of the Medical School will wish to get some training on the machine.

As you know, we have used the PDP-4 at your plant with considerable success. My experience with it has lead me to select the PDP-8 over the PDP-5. I feel that the more powerful order code and somewhat greater input-output flexibility of the PDP-8 are to its advantage for my purposes. I would like to see the memory of the PDP-8 expanded as rapidly as possible. I am not alone in this decision. The difference in memory size certainly favors the PDP-5 at this time.

I recently spent about one half day with Mr. Morton Ruderman of your company discussing these matters. He gave me a wealth of valuable information and was most helpful.

Sincerely yours,

Burton S. Rosner

BURTON S. ROSNER

BSR:j

Show veteran's full name and VA file number on all correspondence. If VA number is unknown, show service number.

St. Francis College
Remsen Street
Brooklyn, N. Y. 11201
Division of Business Administration
JAckson 2-2300

June 8, 1964

Mr. Kenneth H. Olsen, President
Digital Equipment Corporation
146 Main Street
Maynard, Massachusetts

Dear Mr. Olsen:

I am in the process of preparing two paper presentations on the process control computer. It has been brought to my attention that your PDP-4 machine is an excellent one. I would like to know, if possible, something about how it is marketed. Would you kindly forward this letter to the right person, and I shall appreciate written information on the following:

1. What is the Digital Equipment Corporation organization for marketing its process control computer?
2. From what geographical locations, or what offices, does Digital Equipment Corporation market its process control computer?
3. Can Digital Equipment Corporation forward literature about its PDP-4 machine?
4. Is the PDP-4 machine manufactured solely at Maynard?

Sincerely,

Eugene M. McCoy

Eugene M. McCoy
Professor of Marketing

EMM:mjm

CAN BE FILED ON END

To: K Olsen

June 16, 1964

COPY

Professor Eugene M. McCoy
St. Francis College
Department of Marketing
Remsen Street
Brooklyn, New York 11201

Dear Professor McCoy:

Your letter of June 8th has been referred to me for reply. We are very pleased to answer your questions regarding the marketing organization of Digital Equipment Corporation.

DEC has district sales office in Massachusetts, New York, Michigan, Pennsylvania, Illinois, San Francisco and Los Angeles, California, Australia, Germany, England and Canada. In addition, we have sales representatives in Texas, the Northwest, Tokyo, and Stockholm. These groups market our complete line of products, which includes digital modules, testing devices and general purpose computers.

The PDP-4 is a general purpose computer used in many applications and has been particularly successful in control applications. When a customer is interested in working out the system application and in buying the other instrumentation components himself, we are happy to sell the PDP-4 to him and to offer him the general services which we are able to give. These services would include our maintenance and programming courses at our home office in Maynard, Massachusetts, as well as applications assistance in the design of any input/output interface equipment. However, when the customer needs a complete system job, we encourage him to go to the Foxboro Company who delivers a complete package, including our PDP-4 computer. We also sell our computers to several other process control companies, and we have other computers which have been used in control applications.

Enclosed is some general information on our computers, including the PDP-4. Incidentally, the PDP-4 will be replaced this year by our PDP-7 which will perform the same operations but at a significantly faster speed. The cost will also be slightly higher. At the present time, all our equipment is manufactured solely at Maynard, and we have not made firm commitments as yet to manufacture in other countries.

If there is anything we can do to help you in your study, please let us know.

Sincerely,

David B. Denniston

DBD:BMP
Enclosures--F41
F51
F71

COPY

original given to Nick Mazzarese to handle on 6/22/64. sh

WOODS HOLE OCEANOGRAPHIC INSTITUTION
WOODS HOLE, MASSACHUSETTS

June 15, 1964

Mr. Kenneth Olsen, President
Digital Equipment Corporation
146 Main Street
Maynard, Massachusetts

Dear Mr. Olsen,

With reference to our conversation of June 12 and our intent to advance our computer facilities for shipboard and laboratory use it is the purpose of this letter to apply for a Grant of Discount towards the purchase of a PDP-5 Computer System. For consideration we submit the following information:

As a result of a study sponsored by the National Academy of Sciences in 1927, the Woods Hole Oceanographic Institution was established in 1930 as an independent non-profit research and educational organization. A $3,000,000 grant from the Rockefeller Foundation formed the initial endowment and the Carnegie Corporation provided funds for the purchase of the land. The Institution is a Massachusetts corporation granted a charter signed by the Secretary of the Commonwealth of Massachusetts, January 6, 1930. The purpose of the Institution as stated in its charter is as follows:

> "To prosecute the study of oceanography in all its branches; to maintain a laboratory or laboratories; together with boats and equipment and a school for instruction in oceanography and allied subjects; ....." The approval of this charter by the Massachusetts Secretary of State in 1930 with its power to maintain a school constituted approval by the appropriate authority.

In January 1956, the Institution received recognition as an approved school of higher learning following a review by the Assistant Commissioner of Education and his staff. On this basis, the Institution was adjusted eligible under the regulations

of the Department of Health, Education and Welfare to qualify fully under the law for the donation to the Woods Hole Oceanographic Institution of the Research Vessel CRAWFORD which had been declared surplus Federal property. In the Education Directory 1961-1962, Part 3 Higher Education, published by the U. S. Department of Health, Education, and Welfare, the Institution is listed on page 90. The Institution is not degree granting but the courses offered are credited with affiliated universities.

The employees of the Institution number nearly 400 on a year round basis with an additional 150 in the summer. About a third are members of the scientific staff in the fields of physical oceanography, chemistry, biology, meteorology, mathematics, geology, geophysics, acoustics, and physics. Another third are the seamen and technicians who man and maintain the research fleet. The rest are laboratory assistants, shop and office workers and members of the administrative staff. Fourteen of the full-time research staff hold appointments at seven universities.

The Woods Hole Oceanographic Institution sponsors postdoctoral, predoctoral, and summer fellowships. Grants are also made to employees to continue their higher education. In addition, the sponsorship of other fellowships through the Institution are by the Ford Foundation, the Office of Naval Research, the National Science Foundation, and the Sloan Foundation.

The latest annual report and a course announcement are enclosed. For your information, computer seminars and lectures are scheduled from time to time, the next one to be held at this institution on June 26, 1964.

One example of affiliation with University programs is Mr. Freeman Keyte of Massachusetts Institute of Technology who is with this institution for a period of two years for pursuing a doctoral thesis on Quality Control, a computer-oriented study. It must be noted that the major portion of research, and particularly that involving the use of computers, is non-directed. This is true whether on shipboard or ashore. The institution being a private establishment seeks its funding support through the efforts of individual researchers pursuant to their needs.

Funds have been reserved out of a grant to us by the National Science Foundation for the purchase of a computer facility. It would appear from this and the above material that the policy of the Digital Equipment Corporation for granting educational institutions a discount might be applicable in this case. If

further information is required we would be pleased to answer any questions you may desire.

Sincerely yours,

Arthur T. Henderson

Arthur T. Henderson
Purchasing Manager

ATH/bh

Enclosures

Westinghouse Electric Corporation

10 High Street
Boston 10, Mass.
Telephone: LIberty 2-0600

June 10, 1964

Mr. Kenneth H. Olsen, President & General Manager
Digital Equipment Company
146 Main Street
Maynard, Massachusetts

Dear Mr. Olsen:

As you know, the computer field is rapidly getting into the use of integrated circuits, and you undoubtedly will also be moving in this direction.

Westinghouse has been working with integrated circuits in development work since 1957, spending our money as well as military funds. As a result, we have a tremendous background. In addition, we have just recently completed and put into operation a new facility at Elkridge, Maryland, for the manufacture of such circuits.

I would like to invite you and your key people to visit the plant, inspect the facilities, and discuss any application engineering problems you may have in this regard.

The plant is located a very short taxi ride from the Friendship Airport in Baltimore.

If you will let me know when you would like to go, I'll make the necessary arrangements with our people at the plant.

Very truly yours,

Wallace B. Strathdee

G

Wallace B. Strathdee
N.E. District Manager
Electronic Components & Specialty Products

K. Olsen's File

Form TG-12
(October, 1961 Ed.)

United States of America
Treasury Department
Office of Domestic Gold and Silver Operations
Washington 25 D. C.

Budget Bureau
Approval No. 48-R169.5

APPLICATION FOR A GOLD LICENSE

INSTRUCTIONS

A. This form is to be used in applying for an initial license, or for a modification or renewal of an existing license to acquire and hold, transport, melt and treat, and/or import gold for use in industry, profession or art, or for sale to the United States, in accordance with the Gold Regulations issued under the Gold Reserve Act of 1934 and section 5(b) of the Act of October 6, 1917, as amended.

B. This application should be filed in duplicate with the Director, Office of Domestic Gold and Silver Operations, Treasury Department, Washington 25, D. C. Be sure all information is furnished and all questions which are applicable are fully answered. Defective or incomplete applications may be returned without consideration.

C. If space provided in the form is not sufficient for a full and complete answer to any question, separate exhibits may be attached. To avoid confusion the exhibits should be numbered or lettered in sequence.

D. The name of the applicant stated in Question 1 hereof shall include the name under which the applicant does business. If the applicant is a corporation, give the exact corporate name; if a partnership, the names of all partners and the name under which the partnership does business; if an unincorporated association, the name of an executive officer, his position and the name of the association; if an individual, his name and the name under which he does business.

E. If applicant is an individual this application must be signed by the individual himself and not an employee; if a partnership, by one of the partners, if a corporation, by the President, Vice President, Secretary, Assistant Secretary, Treasurer, or Assistant Treasurer of such corporation; if an unincorporated association, by an executive officer.

F. As used in this application, the term beneficial owner of a gold business means any person, other than the owner of record of such business or of 20% or more of the outstanding capital stock or other certificates of ownership of such business, who receives, or is entitled to receive, 20% or more of the net profits accruing from such gold business.

G. All licensees must comply with the Gold Regulations, copies of which are supplied with application forms. Accordingly, before executing this form, applicants should familiarize themselves with the provisions of the Regulations, giving particular attention to the distinction between fabricated and semi-processed gold, as set forth in section 54.4(a)(9).

H. Gold licenses are issued for the maximum amount of gold (including scrap but not including fabricated gold) which the applicant needs to hold at any one time in order to meet the legitimate and customary requirements of the gold activities in which he is engaged. The amount of gold for which Treasury Department gold licenses (not including export licenses) are issued does not limit the licensee as to the quantity of gold which he may acquire or process during any particular period; it does limit him, however, to holding at all times not more than the amount specified in his license.

I. The information requested in each item of this application must be supplied.

J. Any material changes in the facts as stated in this application are required to be reported in a letter to the Director, Office of Domestic Gold and Silver Operations, within fifteen days after such changes. Failure to do so may result in nonrenewal or revocation of a license.

Form TG-12
(Oct. 1961 Ed.)

INSTRUCTIONS (con'd)

K. Description of Gold Licenses:[1]

1. LICENSE TGL-12. This license is primarily for dealers acquiring unmelted scrap gold, filings, sweepings, clippings, polishings and the like, and retort sponge. The holder of such license, unless it is modified, may not melt or treat gold or have gold melted or treated for his account. Gold which is acquired pursuant to this license may only be disposed of by sale to a United States Mint or Assay Office or to persons authorized under the Gold Regulations to acquire such gold. Under certain circumstances this license may be modified to permit the melting of scrap gold and its disposition to a United States Mint or Assay Office or to holders of licenses on Form TGL-13.

2. LICENSE TGL-13. This license is primarily for miners, refiners, and manufacturers who dispose of semi-processed gold. It enables the holder to acquire gold in any form, to melt and treat gold, and to dispose of fabricated gold and semi-processed gold (which includes fine and alloyed gold). Upon request, this type of license may be modified for the following purposes:

(a) To make sales of gold for legitimate industrial use in the form of rolled gold plate and gold filled sheet, wire and tubing, provided such material has a gold fineness of .350 or less, without the necessity of obtaining an End-Use Certificate.

(b) To permit the licensee named herein to make sales of gold for legitimate dental use, in the form of 24 carat plate and sheet, ingots and nuggets, to persons holding a Treasury Department gold license on Form TGL-13, TGL-13-A or TGL-14, without the necessity of obtaining an End-Use Certificate.

3. LICENSE TGL-13-A. This license is primarily for persons regularly engaged in the business of dealing in semi-processed gold in various forms, such as jewelry and dental supplies and other gold items. It enables the holder to acquire gold in any form and to dispose of it in the form in which acquired. It does not permit the holder to melt or treat gold or have hold melted or treated for his account. Upon request, this type of license may be modified as described in item 2(b) above.

4. LICENSE TGL-14. This license is primarily for manufacturers who acquire semi-processed gold, but dispose of gold in fabricated form. It enables the holder to acquire gold in any form, and to melt and treat gold; it prohibits the disposition of gold in any form, except as fabricated gold or scrap gold.

---

[1] In the absence of specific authorization, a Treasury Department gold license does not permit the acquisition, holding, melting, treating, etc. of gold coins or gold derived therefrom or of any gold held at any time in noncomplicance with any laws or regulations relating thereto.

1. Name and post office address of applicant.

Digital Equipment Corporation
146 Main Street
Maynard, Massachusetts 01754

2. Name and post office address of person to whom notices and communications should be sent.

Digital Equipment Corporation
146 Main Street
Maynard, Massachusetts 01754
Attn: Kenneth H. Olsen, President

3. Purpose of application (check one).

New License	X
Renewal of existing license	
Modification of existing license	

4. If application is for modification of an existing license, describe the modification which is desired and give the reasons therefor.

Not Applicable

5. Nature of business in which applicant is engaged or in which he proposes to engage:

Manufacture of digital computers and computer modules.

6. Applicant has been engaged in such business since the following date:

September, 1957

7. Check type of license desired by applicant (See para. K of instructions.)

TGL-12		TGL-13	
TGL-13-A		TGL-14	X

8. Maximum amount in fine troy ounces of gold which you desire to hold at any one time, for which a license is requested. (See para. H of instructions.)

150 Troy Ounces

Form TG-12
(Oct. 1961 Ed.)

9. List below three business references (at least one should be an officer of the bank or trust company with which applicant does business in its official capacity).

Name	Address	Occupation or business
Lincoln Barber National Shawmut Bank	60 Water St., Boston	Bank
Motorola Semiconductor Tektronix, Inc.	Prods. 5005 E. McDowell Rd. Phoenix, P.O. Box 831, Portland, Oregon,	Semiconductor Oscilloscopes

10. Attach as a separate exhibit a listing of the Federal income tax returns filed in each of the last five years by the applicant; by all partners, officers and directors of the applicant; and by all beneficial owners (if any) of such business, except that if applicant is a corporation give such information as to beneficial owner (if any) of 50% or more of the outstanding capital stock. Indicate with respect to each return, the year, the collection district where filed and the name and address under which such return was filed. If no return was filed, so indicate. (If during the last five years you have been the holder of a Treasury Department gold license, you need not reply to this question.)

Filed at Boston, Mass. - September 15 - 1959, 1960, 1961, 1962, 1963

11. If applicant is not an individual, give the state, district or territory under the laws of which it is organized.

Massachusetts

12. Has the applicant or any officer, director, or partner thereof been previously known by any other name than that appearing on this application?

Yes [ ] No [X]

If answer is "Yes," give particulars.

13. Has the applicant or any partner, officer, director, or beneficial owner of the applicant ever been convicted of a violation of any municipal, state, or federal law (other than traffic violation) or been the subject of any adverse action, including refusal or revocation of a license, by any administrative agency of the Federal Government or of any state or municipal government?

Yes [ ] No [X]

If answer is "Yes," give details.

(If during the last five years you have been the holder of a Treasury Department gold license you need not reply to this question.)

14. Has the applicant, any officer, or director, partner or holder of 10% or more of the outstanding capital stock of the applicant; any beneficial owner of the applicant's gold business, or any relative of the applicant, or of an officer, director, partner, stockholder or beneficial owner thereof, or of a person exercising control over such business, ever had any financial interest in or financial connection with the following:

(a) Any application for a gold license pending before the Treasury Department? Yes [ ] No [X]

(b) Any application for a gold license which has been denied by the Treasury Department? Yes [ ] No [X]

(c) Any gold business the license of which has been suspended or revoked by the Treasury Department? Yes [ ] No [X]

(d) Any previous gold license issued by the Treasury Department? Yes [ ] No [X]

(e) Any person or firm operating pursuant to Section 54.18, 54.19, or 54.21 of the Gold Regulations? Yes [ ] No [X]

(f) Any person or firm excluded from operating pursuant to Section 54.18, 54.19 or 54.21 of the Gold Regulations? Yes [ ] No [X]

If the answer to any of these questions is "Yes," give particulars.

No. 15

TABLE I

Form TG-12 (Oct. 1961 Ed.)

Instructions:

If applicant is an individual, complete columns (a) and (b) as to the applicant and the owner of the gold business if other than the applicant. If a partnership, complete columns (a), (b), (c) and (d) as to each partner. If a corporation or an unincorporated association, complete all columns as to officers, directors or members of the governing board and stockholders or holders of other certificates of ownership or membership, unless the applicant has more than 10 stockholders or holders of other certificates of ownership or membership, in which case such information shall be furnished only as to all persons holding 10% or more of the capital stock or other certificates of ownership. If any stockholder of the applicant is a corporation or other legal entity, state below the name of such corporation or legal entity and fill out item 20.

(a) Name and home address	(b) Date and place of birth	(c) Nature of partnership interest (general or limited) or office held	(d) Percentage of ownership interest	(e) Director or member of governing board (yes or no)	(f) No. of shares of each class of stock or other membership of ownership interest
Olsen, Kenneth H. Weston Road Lincoln, Mass.	20 February 1926 Bridgeport, Conn.	President	11.8%	Yes	6,000
Anderson, Harlan E. Rollingwood Lane Concord, Mass.	15 October 1929 Freeport, Illinois	Vice Pres. and Treasurer	7.9%	Yes	4,000
Rowe, Dorothy E. 22 River Street Boston, Mass.	5 August 1917 Albany, New York	Clerk	.6%	Yes	300

Form TG-12
(Oct. 1961 Ed.)

16. State the occupations and businesses in which each person named in Table I is engaged at the present time or has been engaged at any time during the past five years, giving the business names and addresses. Note: Do not include herein any data which is already reported in Table I of this application.

Name	Address	Occupation or business	Dates
K.H. Olsen	DEC, Maynard, Mass.	President	
H.E. Anderson	DEC, Maynard, Mass.	Vice President and Treasurer	
D.E. Rowe	American Research Boston, Mass.	and Development Clerk	

17. List the names and addresses of all branches and subsidiaries of applicant and explain applicant's relationship to each.

See Attached

18. Does the beneficial ownership of the gold business differ in any way from the legal ownership as stated herein? (See para. F of instructions.)

Yes [ ] No [X]

If the answer is "Yes," give particulars and complete Table I as to such beneficial owners.

19. Give the full name and address of each person (whether or not connected with the applicant, but not including shareholders) who has assisted or will assist in any manner in financing the applicant's gold business, by furnishing funds, equipment or any other thing of value in an amount equal to 10% or more of the total assets of such gold business. Show the type of assistance which has been or will be furnished by each person and the amount or value thereof.

Not Applicable

20. If 20% or more of the stock of the applicant corporation is owned or held by or on behalf of another corporation or legal entity listed in Table I, complete the following with respect to the latter corporation or legal entity: American Research and Development Corp.

(a) State the name and address of such corporation or legal entity and describe briefly the extent and nature of its ownership or control of the applicant corporation. We are a majority owned affiliate of the American Research and Development Corp., John Hancock Bldg., Boston, Mass. 02116.

(b) Give the names and addresses of the officers, directors and shareholders (if there are less than ten) of such other corporation or legal entity. If such other corporation or legal entity has ten or more shareholders, supply such information as to each person owning 20% or more of the outstanding capital stock. Not Applicable

(c) Does the beneficial ownership of such corporation or legal entity differ from the legal ownership as described in answer to (b)?

Yes [ ] No [X]

(d) If the answer to (c) is "Yes," give particulars.

21. Will the applicant have and maintain absolute control of the gold business, its equipment and operations, including complete supervision of the business?

Yes [X] No [ ]

If the answer is "No," explain.

Form TG-12
(Oct. 1961 Ed.)

22. List the permanent books and other accounting records maintained by the applicant; state the address where such records are located and, if such records are kept or audited by an outside accountant, give the name and address of such accountant.

General Ledger and all supporting books - Maynard, Mass.
Minutes of Board of Directors Meetings - Maynard, Mass.
Accountant: Lybrand, Ross Bros. and Montgomery, Boston, Mass.

23. List the major items of gold mining, processing, or manufacturing equipment now owned or leased by and in the possession of the applicant, giving the type of each article. If the applicant proposes to melt, smelt or refine gold, include a description of the kind and number of furnaces or other equipment used for such purposes.

Copies of all purchase orders for such equipment attached.

24. (a) If the applicant is engaged or proposes to engage in the processing (including manufacturing) of gold, supply the address at which such operations will be conducted, and the square feet occupied.

146 Main Street, Maynard, Massachusetts - 232,000 square feet

(b) Are such premises owned by the applicant? Yes [ ] No [X]

(c) Are such premises leased by the applicant? Yes [X] No [ ]

If such premises are leased, give the name and address of the person from whom they are leased.

Maynard Industries, Inc., 146 Main Street, Maynard, Massachusetts

25. How many persons are now employed by the applicant in connection with his gold business? 589

(a) Does this number include officers? Yes [X] No [ ]

(b) If less than 10 persons are employed, applicant should supply the names and home addresses of all employees. Not Applicable

26. Does the applicant propose to resell semi-processed gold, in the same form as acquired, without further processing? Yes [ ] No [X]

27. Is the applicant a jewelry supply dealer or dental dealer? Yes [ ] No [X]

28. Describe any processing (including manufacturing) which applicant presently contemplates that he will perform on the gold acquired by him, including, in so far as is possible, the following information:

(a) If applicant is a miner, indicate the method of metallurgical treatment in which applicant proposes to engage, such as amalgamation, cyanidation, concentration, dredging, or the like. N/A

(b) If applicant is a mill, smelter, or refiner, indicate the metallurgical process which applicant proposes to utilize for treating gold-bearing material. N/A

(c) If applicant is a manufacturer (including caster) indicate the manufacturing operations which applicant presently contemplates performing on the gold. Plating of contacts on computer modules.

(d) If the applicant is an assayer, he should indicate what type of gold bullion or ore assays he proposes to make during the course of a year and an estimate of the amount of melted gold that he will accumulate. N/A

(e) If applicant does not smelt or refine gold, but is required to melt gold, he should state the purpose for which he is required to melt gold. N/A

Form TG-12
(Oct. 1961 Ed.)

29. Will any of applicant's operations, incident to the processing, manufacturing, or finishing of the applicant's gold be performed by others?

Yes [ ] No [X]

If answer if "Yes," give details.

30. Does the applicant propose to dispose of semi-processed gold? Yes [ ] No [X]

If the answer to the foregoing is "Yes," applicant should specify to the fullest extent possible the type of semi-processed gold which is involved, such as findings, dental gold, plate (mechanical), plate (electrical), ring castings, fine gold, alloyed gold, solutions, anodes, amalgam, retort sponge.

31. Does the applicant propose to dispose only of fabricated gold and scrap? Yes [X] No [ ]

If the answer to the foregoing is "Yes," applicant should list to such extent as is possible the types of fabricated gold articles that applicant presently contemplates will be produced.

Plating of contacts on computer modules.

32. Applicant should indicate to which of the following he contemplates selling gold:

Wholesalers [ ] Retailers [ ] Manufacturers [ ] Platers [ ]

Concentrators, Smelters or Refiners [ ] United States Mint or Assay Office [ ]

Other (describe) N/A

The applicant will use gold acquired under the authority of the license herein applied for only in accordance with the provisions of the license granted, and in full compliance with the Gold Reserve Act of 1934, section 5(b) of the Act of October 6, 1917, as amended, and the Gold Regulations issued thereunder. The applicant will keep full and accurate records of all his operations and transactions with respect to gold in accordance with the provisions of Section 54.26 of the Gold Regulations and the terms of his license.

I, Digital Equipment Corporation, certify that I am the applicant

in the above application for license or the _____ of
(state relationship to applicant)

_____, which is the applicant in the above
(name of applicant, if applicant is other than individual)

application for license; that I am duly authorized to make the foregoing application on behalf of the applicant; that I have personal knowledge of the facts as set forth in said application and know the same to be true and accurate; and that I do not have knowledge of any material facts in connection with such application which are not fully and accurately set forth therein.

_____
(Signature)
K.H. Olsen, President
Digital Equipment Corporation
146 Main Street
(Address)
Maynard, Massachusetts 01754

May 28, 1964
(Date)

United States Code Title 18, Section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States or to conceal therefrom, knowingly and willfully, any material fact as to any matter within the jurisdiction of such department or agency.

PURCHASE ORDER

digital EQUIPMENT CORPORATION
MAYNARD·MASSACHUSETTS

AREA CODE 617 • TWINOAKS 7-8822 • TWINBROOK 9-0510 • TWX MAYN 753 UX

PURCHASE ORDER NO. 33717

OUR PURCHASE ORDER NUMBER MUST APPEAR ON ALL INVOICES, PACKING SLIPS AND SHIPPING DOCUMENTS.

DATE: 3/24/64

The Meaker Company
75 River Road
Nutley 10, New Jersey

SHIP TO

DIGITAL EQUIPMENT CORPORATION
Thompson Street
Building 5, Stockroom
Maynard, Massachusetts 01754

TO BE DELIVERED BY	SHIP VIA	TERMS	F.O.B.	GOV'T CONTRACT NO.
5/1/64	Truck	See Note 1	See Note 1	N/A

PLEASE SHIP SUBJECT TO THE CONDITIONS ON THE FACE AND BACK HEREOF THE FOLLOWING:

ITEM	QUANTITY	STOCK NO./DESCRIPTION
1.	7	Cold Water Rinse Tanks with: (a) 3/4" Stainless Steel standpipe overflow.
2.	1	Electrocleaner Tank with: (a) 3/4" Stainless Steel standpipe overflow. (b) Three (3) 500 watt stainless steel electric heaters. (c) One (1) Non-indicating thermostat. (d) One (1) 3/4" diameter stainless steel work bar with elevated insulators.
3.	3	Hot Water Rinse Tanks with: (a) 3/4" Stainless Steel standpipe overflow. (b) Three (3) 500 watt stainless steel electric immersion heaters. (c) One (1) Non-indicating thermostat.
4.	3	Acid Dip or Reclaim Rinse Tanks, 30" x 12" x 8" deep, fabricated of fiberglass.
5.	1	Ammonium Persulfate Tank, 30" x 26" x 8" deep, 1/2" hemmed rims, fabricated of #14 ga. type 304 stainless steel with: (a) 3/4" Stainless Steel standpipe overflow, with cap. (b) Three (3) 500 watt Stainless Steel electric immersion heaters.

(continued)

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IMPORTANT

PLEASE SEND INVOICE IN TRIPLICATE TO
ACCOUNTS PAYABLE DEPARTMENT

DIGITAL EQUIPMENT CORPORATION
By Henry J. Cocuzzo
PURCHASING AGENT

PURCHASING

178 REVISED

PURCHASE ORDER

PURCHASE ORDER NO. 33717

OUR PURCHASE ORDER NUMBER MUST APPEAR ON ALL INVOICES, PACKING SLIPS AND SHIPPING DOCUMENTS.

DATE: 3/24/64

digital EQUIPMENT CORPORATION
MAYNARD·MASSACHUSETTS

AREA CODE 617 • TWINOAKS 7-8822 • TWINBROOK 9-0510 • TWX MAYN 753 UX

The Meaker Company
75 River Road
Nutley 10, New Jersey

SHIP TO

DIGITAL EQUIPMENT CORPORATION
Thompson Street
Building 5, Stockroom
Maynard, Massachusetts 01754

TO BE DELIVERED BY	SHIP VIA	TERMS	F.O.B.	GOV'T CONTRACT NO.
5/1/64	Truck	N/30	See Note 1	N/A

PLEASE SHIP SUBJECT TO THE CONDITIONS ON THE FACE AND BACK HEREOF THE FOLLOWING:

ITEM	QUANTITY	STOCK NO./DESCRIPTION
		(c) One (1) Non-indicating thermostat.
6.	3	Hold Tanks, 30" x 26" x 8" deep, 1/2" hemmed rims fabricated of #14 ga. type 304 stainless steel with:
		(a) 3/4" Stainless Steel standpipe overflow.
	2	Strike Tanks (Aurobond & Sulfuric Acid Activator) 30" x 12" x 8" deep, no rims, fabricated of #11 ga. HRS with:
		(a) 3/32" White vinyl lining.
		(b) Two (2) 1/2" diameter stainless steel anode rods with insulators.
		(c) One (1) 3/4" diameter stainless steel cathode rod with elevated insulators.
8.	1	Nickel Plating Unit, consisting of:
		(a) Nickel Plating Tank, 120" x 36" x 6" deep, no rims, fabricated of 1/4" HRS, on legs to 12" height, lined with FL-85. (This tank to set inside water heating jacket.)
		(b) Water heating jacket, 126" x 42" x 12 deep, fabricated of 1/4" HRS, 2" angle rim and girth, with three (3) heater fittings, overflow fitting, drain fitting, water inlet fitting and level gage; painted on (

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K Allen / C. Kendrick

IMPORTANT

PLEASE SEND INVOICE IN TRIPLICATE TO
ACCOUNTS PAYABLE DEPARTMENT

DIGITAL EQUIPMENT CORPORATION
By Henry J. Crouse
PURCHASING AGENT

PURCHASING

DF 178 REVISED

PURCHASE ORDER

PURCHASE ORDER NO. 33717

digital EQUIPMENT CORPORATION
MAYNARD·MASSACHUSETTS

AREA CODE 617 • TWINOAKS 7-8822 • TWINBROOK 9-0510 • TWX MAYN 753 UX

OUR PURCHASE ORDER NUMBER MUST APPEAR ON ALL INVOICES, PACKING SLIPS AND SHIPPING DOCUMENTS.

DATE: 3/24/64

The Meaker Company
75 River Road
Nutley 10, New Jersey

SHIP TO

DIGITAL EQUIPMENT CORPORATION
Thompson Street
Building 5, Stockroom
Maynard, Massachusetts 01754

TO BE DELIVERED BY	SHIP VIA	TERMS	F.O.B.	GOV'T CONTRACT NO.
5/1/64	Truck	N/30	See Note 1	N/A

PLEASE SHIP SUBJECT TO THE CONDITIONS ON THE FACE AND BACK HEREOF THE FOLLOWING:

ITEM	QUANTITY	STOCK NO./DESCRIPTION
		the exterior. (c) One (1) Angle iron stand, 12" high for water jacket. (d) Eleven (11) 3/4" diameter stainless steel anode rods with insulators. (e) Three (3) Clepco Electric Heaters, Cat. No. WT6228, steel sheathed, 6 KW each, 230/1/60 AC. (f) One (1) Clepco Heater Controller, Cat. No. D95B2, 230/3/60 AC, 7 KW per phase. (g) One (1) Angle iron superstructure, mounted On jacket rims, to support cathode rod rollers superstructure to be painted with gray urethane. (h) One (1) Single cathode rod agitator unit, 1/4 HP gear motor drive, 115/1/60 AC. (i) One (1) Mounting frame for rod agitator. (j) One (1) Cathode frame assembly consisting of ten (10) 3/4" diameter stainless steel rods connected to two (2) 1/2" x 2" stainless steel bars. (k) Twenty (20) Cathode rod rollers mounted on superstructure.

(continued)

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IMPORTANT

PLEASE SEND INVOICE IN TRIPLICATE TO ACCOUNTS PAYABLE DEPARTMENT

DIGITAL EQUIPMENT CORPORATION
By Henry J. Crause
PURCHASING AGENT

PURCHASING

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PURCHASE ORDER

PURCHASE ORDER NO. 33717

digital EQUIPMENT CORPORATION
MAYNARD·MASSACHUSETTS

AREA CODE 617 • TWINOAKS 7-8822 • TWINBROOK 9-0510 • TWX MAYN 753 UX

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DATE: 3/24/64

The Meaker Company
75 River Road
Nutley 10, New Jersey

SHIP TO
DIGITAL EQUIPMENT CORPORATION
Thompson Street
Building 5, Stockroom
Maynard, Massachusetts 01754

TO BE DELIVERED BY	SHIP VIA	TERMS	F.O.B.	GOV'T CONTRACT NO.
5/1/64	Truck	N/30	See Note 1	N/A

PLEASE SHIP SUBJECT TO THE CONDITIONS ON THE FACE AND BACK HEREOF THE FOLLOWING:

ITEM	QUANTITY	STOCK NO./DESCRIPTION
8A.	1	Sethco Filter, Model LHIN-40V, for Sulfamex Nickel, per attached literature
9.	1	Autronex CI Gold Plating Unit, consisting of: (a) Autronex Plating Tank, 120" x 36" x 6" deep, no rims, fabricated of 1/4" HRS, on legs to 12" height, lined with white FL-85 lined. (This tank to set inside water heating jacket.) (b) Water heating jacket, 126" x 42" x 12" deep, fabricated of 1/4" HRS, 2" angle rim and girth, with three (3) heater fittings, overflow fitting, drawn fitting, water inlet fitting and level gage; painted on the exterior. (c) One (1) Angle iron stand, 12" high for water jacket. (d) Eleven (11) 3/4" diameter stainless steel anode rods with insulators. (e) Three (3) Clepco Electric Heaters, Cat. No. WT6228, steel sheathed, 6 KW each, 230/1/60 AC.

(continued)

[redacted]

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IMPORTANT

PLEASE SEND INVOICE IN TRIPLICATE TO
ACCOUNTS PAYABLE DEPARTMENT

DIGITAL EQUIPMENT CORPORATION
By Henry J. Crouse
PURCHASING AGENT

PURCHASING

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PURCHASE ORDER

digital EQUIPMENT CORPORATION
MAYNARD·MASSACHUSETTS

AREA CODE 617 • TWINOAKS 7-8822 • TWINBROOK 9-0510 • TWX MAYN 753 UX

PURCHASE ORDER NO. 33717

OUR PURCHASE ORDER NUMBER MUST APPEAR ON ALL INVOICES, PACKING SLIPS AND SHIPPING DOCUMENTS.

DATE: 3/24/64

The Meaker Company
75 River Road
Nutley 10, New Jersey

SHIP TO
DIGITAL EQUIPMENT CORPORATION
Thompson Street
Building 5, Stockroom
Maynard, Massachusetts 01754

TO BE DELIVERED BY	SHIP VIA	TERMS	F.O.B.	GOV'T CONTRACT NO.
5/1/64	Truck	N/30	See Note 1	N/A

PLEASE SHIP SUBJECT TO THE CONDITIONS ON THE FACE AND BACK HEREOF THE FOLLOWING:

ITEM	QUANTITY	STOCK NO./DESCRIPTION
		(f) One (1) Clepco Heater Controller, Cat. No. D9582, 230/3/60 AC, 7 KW per phase. (g) One (1) Angle iron superstructure, mounted on jacket rims, to support cathode rod rollers, superstructure to be painted with gray urethane. (h) One (1) Single cathode rod agitator unit, 1/4 HP gear motor drive, 115/1/60 AC. (i) One (1) Mounting frame for rod agitator. (j) One (1) Cathode frame assembly consisting of ten (10) 3/4" diameter stainless steel rods connected to two (2) 1/2" x 2" stainless steel bars. (k) Twenty (20) Cathode rod rollers mounted on superstructure.
9A.	1	Sethco Filter, Model LSIN-40V, for Autronex CI Gold, per attached literature
10.	13	Platanium Anodes, 2" x 24", each with two (2) 1" x 6" hooks, two for Aurobond Strike and eleven for Autronex CI Gold Plate.
11.	22	Nickel Anodes, RDP, standard oval, 12" long with two (2) Tapped holes

(continued)

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IMPORTANT

PLEASE SEND INVOICE IN TRIPLICATE TO
ACCOUNTS PAYABLE DEPARTMENT

DIGITAL EQUIPMENT CORPORATION
By Henry J. Coons
PURCHASING AGENT

PURCHASING

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PURCHASE ORDER

PURCHASE ORDER NO. 33717

digital EQUIPMENT CORPORATION
MAYNARD·MASSACHUSETTS

AREA CODE 617 • TWINOAKS 7-8822 • TWINBROOK 9-0510 • TWX MAYN 753 UX

OUR PURCHASE ORDER NUMBER MUST APPEAR ON ALL INVOICES, PACKING SLIPS AND SHIPPING DOCUMENTS.

DATE: 3/24/64

The Meaker Company
75 River Road
Nutley 10, New Jersey

SHIP TO

DIGITAL EQUIPMENT CORPORATION
Thompson Street
Building 5, Stockroom
Maynard, Massachusetts 01754

TO BE DELIVERED BY	SHIP VIA	TERMS	F.O.B.	GOV'T CONTRACT NO.
5/1/64	Truck	N/30	See Note 1	N/A

PLEASE SHIP SUBJECT TO THE CONDITIONS ON THE FACE AND BACK HEREOF THE FOLLOWING:

ITEM	QUANTITY	STOCK NO./DESCRIPTION
12.	44	4" Titanium Anode Hooks
13.	22	Anode Bags, special for two hooks in anode.
14.	1	Sel-Rex Aurion-X Gold Resin Reclaim System, Model T/C, per attached literature, complete with standby assembly

NOTE:
All items except Item 8A and Item 9A will be F. O. B. Nutley, New Jersey.
Item 8A and Item 9A will be F. O. B. Freeport, New York.

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IMPORTANT

PLEASE SEND INVOICE IN TRIPLICATE TO
ACCOUNTS PAYABLE DEPARTMENT

DIGITAL EQUIPMENT CORPORATION
By Henry J. Cooper
PURCHASING AGENT

PURCHASING

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digital EQUIPMENT CORPORATION
MAYNARD·MASSACHUSETTS

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PURCHASE ORDER NO. 33718

OUR PURCHASE ORDER NUMBER MUST APPEAR ON ALL INVOICES, PACKING SLIPS AND SHIPPING DOCUMENTS.

DATE: 3/24/64

Sel-Rex Corporation
75 River Road
Nutley 10, New Jersey

SHIP TO

DIGITAL EQUIPMENT CORPORATION
Thompson Street
Building 5, Stockroom
Maynard, Massachusetts 01754

TO BE DELIVERED BY	SHIP VIA	TERMS	F.O.B.	GOV'T CONTRACT NO.
5/1/64	Truck	N/10	Nutley, N. J.	N/A

PLEASE SHIP SUBJECT TO THE CONDITIONS ON THE FACE AND BACK HEREOF THE FOLLOWING:

ITEM	QUANTITY	STOCK NO./DESCRIPTION
1.	75	Troy ozs. of Gold Make-up (Autronex CI)
2.	25	Troy ozs. of Gold Replenisher (Autronex CI)

Cy Kendrick

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IMPORTANT

PLEASE SEND INVOICE IN TRIPLICATE TO
ACCOUNTS PAYABLE DEPARTMENT

DIGITAL EQUIPMENT CORPORATION
By Henry J Cooper
PURCHASING AGENT

PURCHASING

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Digital EQUIPMENT CORPORATION
MAYNARD·MASSACHUSETTS

AREA CODE 617 • TWINOAKS 7-8822 • TWINBROOK 9-0510 • TWX MAYN 753 UX

PURCHASE ORDER NO. ~~33717~~ 33719

OUR PURCHASE ORDER NUMBER MUST APPEAR ON ALL INVOICES, PACKING SLIPS AND SHIPPING DOCUMENTS.

DATE: 3/24/64

Sel-Rex Corporation
75 River Road
Nutley 10, New Jersey

SHIP TO

DIGITAL EQUIPMENT CORPORATION
Thompson Street
Building 5, Stockroom
Maynard, Massachusetts 01754

TO BE DELIVERED BY	SHIP VIA	TERMS	F.O.B.	GOV'T CONTRACT NO.
5/1/64	Truck	N/10	Nutley, N. J.	N/A

PLEASE SHIP SUBJECT TO THE CONDITIONS ON THE FACE AND BACK HEREOF THE FOLLOWING:

ITEM	QUANTITY	STOCK NO./DESCRIPTION
1.	100	Gallons Sulfamex Nickel

Cy Kendrick

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IMPORTANT

PLEASE SEND INVOICE IN TRIPLICATE TO
ACCOUNTS PAYABLE DEPARTMENT

DIGITAL EQUIPMENT CORPORATION
By Henry J. Course
PURCHASING AGENT

PURCHASING

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SALES AND SERVICE

Digital Modules are sold through company offices and manufacturer's representatives in principal computer market areas throughout the world. Factory-trained applications engineers at all Digital offices can assist with complicated design and utilization problems.

For complete technical and applications information, contact the nearest office listed below.

SALES OFFICES

MAIN OFFICE AND PLANT:

146 Main Street, Maynard, Massachusetts 01754
Telephone: AC617-897-8822 TWX: 710-347-0212

WEST COAST OFFICE:

8939 Sepulveda Boulevard, Los Angeles, Calif. 90045
Telephone: AC213-670-0690 TWX: 910-328-6121

NEW YORK OFFICE:

1259 Route 46, Parsippany, New Jersey 07054
Telephone: AC201-335-0711 TWX: 510-235-8319

WASHINGTON OFFICE:

1430 K. Street, NW, Washington, D. C. 20005
Telephone: AC202-628-4262 TWX: 202-965-0545

PITTSBURGH OFFICE:

300 Seco Road, Monroeville, Pennsylvania 15146
Telephone: AC412-351-0700 TWX: 412-372-4695

SAN FRANCISCO OFFICE:

2450 Hanover, Palo Alto, California 94304
Telephone: AC415-326-5640 TWX: 910-373-1266

CHICAGO OFFICE:

910 North Busse Highway, Park Ridge, Illinois 60068
Telephone: AC312-825-6626 TWX: 312-823-3572

IN CANADA:

Digital Equipment of Canada, Ltd.,
1301 Richmond Road, Ottawa, Ontario, Canada
Telephone: AC613-828-5174 TWX: 610-562-1910

IN EUROPE:

Digital Equipment GmbH, Theresienstrasse 29
Munich 22/West Germany
Telephone: 29 94 07, 29 25 66 Telex: 841-5-24226

Digital Equipment Corporation France
6, Avenue Daniel Lesueur, Paris 7, France
Telephone 273 08-66

IN AUSTRALIA:

Digital Equipment Australia Pty. Ltd.,
Colman House, Walker and Berry Streets,
North Sydney, New South Wales, Australia.
Telephone: 9-20919

SALES REPRESENTATIVES

IN THE SOUTHWEST:

DATRONICS INC.

1401 South Post Oak Road, Houston, Texas 77027
Telephone: AC713-782-0432 TWX: 713-571-2154

Post Office Box 13384, Fort Worth, Texas 76118
Telephone: AC817-281-1284 TWX: 817-281-3120

7078 San Pedro Avenue, Suite 205,
San Antonio, Texas 78216
Telephone: AC512-824-6368 TWX: 512-571-0788

Post Office Box 782, Kenner, Louisiana 70062
Telephone: AC504-721-1410

IN THE NORTHWEST:

SHOWALTER-JUDD, INC.,
1806 South Bush Place, Seattle, Washington 98144
Telephone: 206-324-7911 TWX: 206-998-0323

IN JAPAN:

RIKEI TRADING CO.,
12, 2-Chome, Shiba Tamura-cho, Minato-ku,
Tokyo, Japan
Telephone: 591-5246 Cable: Rikeigood, Tokyo

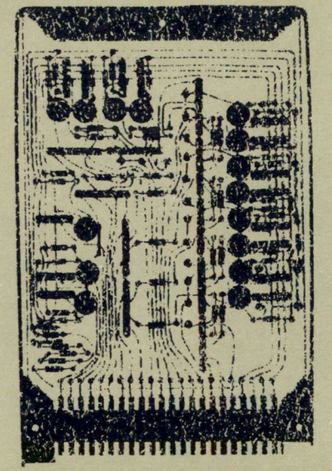
IN AUSTRALIA:

J. J. MASUR & CO., PTY. LTD.,
500 City Road, South Melbourne, S.C. 5,
Victoria, Australia
Telephones: 69 1357, 69 1662, 69 1360
Cable: Masumelb, Melbourne

IN SWEDEN

TELARE AB
Industrigatan 4, Stockholm K, Sweden
Telephone: 54 33 24 Telex: 10178

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digital

MODULES PRICE LIST

EFFECTIVE APRIL 15, 1964

DIGITAL EQUIPMENT CORPORATION • MAYNARD, MASSACHUSETTS

SERIES	INVERTERS	DIODE GATES	FLIP-FLOPS	DELAYS	CLOCKS & PULSE GENERATORS	PULSE AMPLIFIERS
100 SERIES LABORATORY MODULES 5 MC	103 – $70	110 – $60	201 – $108	302 – $99	402 – $80 406 – 140 410 – 61	602 – $83
1000 SERIES SYSTEM MODULES 5 MC	1000 – $28 1001 – 32 1002 – 30 1103 – 59 1105 – 49	1110 – $50 1130 – $79 1111 – 43 1150 – 130 1113 – 68 1151 – 103 1115 – 54 1161 – 130 1117 – 47	1201 – $97 1204 – 131 1209 – 117 1213 – 105	1304 – $88 1310 – 76 1311 – 69 1316 – 117	1404 – $64 1406 – 160 1410 – 50	1607 – $109 1608 – 104 1609 – 129
3000 SERIES LABORATORY MODULES 500 KC	3101 – $47 3101C – 62 3102 – 49 3102C – 64	3110 – $43 3112C – $70 3110C – 58 3114 – 55 3112 – 55 3114C – 70	3201 – $63 3201C – 78 3203 – 72 3203C – 87	3301 – $74 3301C – 89 3302 – 76 3302C – 91	3401 – $67 3401C – 82 3407 – 160 3410 – 41 3410C – 72	3602 – $65 3602C – 80
4000 SERIES SYSTEM MODULES includes 500 KC & 1 MC	4102 – $55 4105 – 38 4106 – 47	4110 – $43 4117 – $47 4111 – 43 4118 – 42 4112 – 68 4141 – 52 4113 – 68 4143 – 56 4114 – 54 4150 – 87 4115 – 54 4151 – 87 4116 – 47 4161 – 105	4201 – $69 4221 – $109 4202 – 96 4222 – 119 4204 – 100 4223 – 143 4205 – 100 4224 – 86 4209 – 79 4225 – 112 4213 – 87 4226 – 144 4214 – 78 4227 – 106 4215 – 90 4228 – 220 4216 – 95 4290 – 150 4217 – 96 4702 – 200 4218 – 96 4703 – 250 4219 – 106 4706 – 260 4220 – 107 4707 – 275	4301 – $80 4303 – 91 4304 – 136 4305 – 106	4401 – $66 4407 – 160 4410 – 39	4603 – $62 4604 – 92 4606 – 117
5000 SERIES LABORATORY MODULES 10 MC	5101 – $70		5202 – $111	5310 – $144	5401 – $100 5403 – 160	5602 – $83
6000 SERIES SYSTEM MODULES 10 MC	6102 – $86 6105 – 49 6106 – 59 6109 – 76 6122 – 91 6123 – 90 6124 – 97	6110 – $50 6117 – $47 6111 – 43 6118 – 54 6113 – 68 6119 – 47 6114 – 74 6150 – 130 6115 – 54 6151 – 103 6116 – 60 6155 – 103	6202 – $107 6207 – 160 6208 – 140 6227 – 150	6310 – $91 6311 – 69	6401 – $103 6403 – 160	6603 – $109 6609 – 121
8000 SERIES SYSTEM MODULES 30 MC	8104 – $227 8120 – 182		8201 – $206			

All shipments are F.O.B. Maynard, Massachusetts, and prices do not include state or local taxes. Prices and specifications are subject to change without notice

QUANTITY DISCOUNTS

$5,000 — 3%; $10,000 — 5%; $20,000 — 10%; $40,000 — 15%; $70,000 — 18%; $100,000 — 20%; $250,000 — 22%

SERIES	CAPACITOR DIODE GATES	AMPLIFIERS (DEC Levels)	AMPLIFIERS (Misc. Signals to DEC)	AMPLIFIERS (DEC Signals to Misc.)	SPECIAL AMPLIFIERS, SLICERS, ETC.	DIGITAL-TO-ANALOG CONVERTERS
100 SERIES LABORATORY MODULES 5 MC			501 – $111	650 – $63 667 – 55 668 – 81 801 – 73		
1000 SERIES SYSTEM MODULES 5 MC		1678 – $66 1681 – 56 1684 – 115 1685 – 100 1690 – 83 1692 – 104	1501 – $100 1552 – $105 1502 – 90 1556 – 116 1535 – 75 1570 – 237 1536 – 164 1571 – 203 1537 – 132 1572 – 180 1538 – 203 1574 – 246 1540 – 141 1672 – 98 1546 – 150 1703 – 71	1616 – $108 1691 – $100 1667 – 54 1693 – 107 1669 – 37 1803 – 100 1672 – 98 1807 – 62 1675 – 39 15780 – 333 1678 – 66 15781 – 357 1687 – 118 15782 – 175 1689 – 108	1534 – $169 1536 – 164 1540 – 141 1546 – 150 1550 – 163 1552 – 105 1554 – 209 1556 – 116 1570 – 237 1990 – 186	1561 – $ 99 1563 – 180 1564 – 180 1566 – 200 1574 – 246 1677 – 140 1704 – 231
4000 SERIES SYSTEM MODULES includes 500 KC & 1 MC	4123 – $59 4125 – 54 4126 – 68 4127 – 68 4128 – 40 4129 – 56		4504 – $72 4505 – 71 4506 – 50 4507 – 54	4514 – $65 4673 – $85 4518 – 65 4676 – 50 4519 – 100 4678 – 78 4521 – 84 4679 – 69 4522 – 69 4680 – 68 4610 – 85 4681 – 68 4659 – 50 4682 – 140 4660 – 41 4685 – 58 4667 – 46 4686 – 51 4669 – 108 4688 – 57 4670 – 85 4689 – 44 4671 – 81		4678 – $78 4679 – 69
6000 SERIES SYSTEM MODULES 10 MC		6684 – $204				
POWER SUPPLIES	710 – $125 722 – 320 722A – 330 728 – 240	728A – $250 730 – 280 734 – 215 734A – 225	743 – $340 769 – $510 743A – 350 769A – 530 749 – 281 772 – 260 765 – 400 772A – 280	776 – $510 779 – $374 776A – 530 779A – 394 778 – 316 782 – 150 778A – 336 782A – 160	783 – $240 783A – 250 784 – 48 1704 – 231	
HIGH CURRENT PULSE EQUIPMENT	51 – $385 53 – 760	58 – $900 61 – 385	63 – $760 71 – $500 68 – 900 72 – 950	75 – $ 82 769 – $510 749 – 281 769A – 530	776 – $510 776A – 530	1913 – $ 45 1990 – 186
OTHER ACCESSORIES	750 – $ 3 831 – 51 901 – 100 901C – 150 911 – 9 912 – 18 921 – 10 922 – 25	950 – $ 9 951 – 9 960 – 175 1804 – 100 1806 – 110 1901 – 150 1903 – 125 1904 – 200	1905 – $175 1916 – $140 1906 – 260 1917 – 175 1907 – 9 1918 – 220 1909 – 220 1919 – 3 1910 – 185 1923 – 185 1913 – 45 1925 – 3.50 1914 – 150 1926 – 5 1915 – 250 1928 – 220	1929 – $ 15 1930 – 250 1935 – [a] 1936 – 15 1938F– 230 1938W– 290 1938T– 290 1950 – 6.50	1951 – $ 6.50 1954 – 20 1955 – 7 1957 – 13.50 1958 – 13.50 1960 – 2 1961 – 30.60 1962 – 17.40	1963 – $ 6.60 4901 – 34 4902 – 47 4903 – 96 4906 – 9.50 4908 – 2

[a] Price depends upon connector, power connection and extra length options. Price ranges from $115 - 212