November 18, 1968

COPY

Dr. Sidney Fernbach
Head, Computation Department
Lawrence Radiation Laboratory
Box 808
Livermore, California

Dear Sid:

SDC has just completed a report on the use of computers in high schools. Because they have requested that this report not be copied, I don't feel I should send a copy directly to you.

I'm sure they will give you a copy of the full report if you are interested. Enclosed is a photocopy of the front page so you can identify your request.

Sincerely yours,

KHO:ecc

Enclosure

computers and automation

The magazine of the design, applications, and implications of information processing systems.

815 WASHINGTON STREET
NEWTONVILLE, MASSACHUSETTS 02160
617-332-5453

July 1, 1968

Mr. Edward Kramer
Digital Equipment Corp.
146 Main St.
Maynard, Mass. 01754

Dear Ed:

Thank you for your nice letter of June 27 received June 29, and the two pages of the ASR-33 information from the PDP 8/S User's Handbook.

1. ASR 33 Operating Manual. These 2 pages are much better than nothing, but I think they are far from adequate. For example, these pages do not describe the operation of such a Key as "HERE IS". They do not describe which keys will produce punches and other operations in upper case, and which keys will not. They do not list the codes produced by the keys when they punch tape. Nor can it be assumed that the keys always produce ASC II codes; some combinations do not. Etc. So my requirement of an adequate manual is not met.

Surely Teletype Corporation produces a manual for operation of the ASR 33. Can't DEC get hold of one of their operation manuals? I am convinced that we are entitled to an adequate operation manual for each piece of equipment provided by DEC.

We are paying DEC $1200 for the ASR 33 from DEC. I understand we could have bought an ASR 33 from Teletype for $450 (about) and then paid DEC about $300 for connection. For the extra $400 odd, surely we should obtain a good operating manual!

2. Legible Engineering Drawings. All you really say in your letter is "Hopefully within 6 to 8 weeks a new set of prints for your configuration will be forwarded to you".

This is no promise, not even the quality of the prints is specified; this is very far from my requirement. My requirement is that I receive a promise from a competent DEC official or officer that I will receive a set of drawings easily legible, full size, and without blotches, by such and such a specified near-at-hand time. I will accept such a promise. I am sure you are not a DEC official or officer able to give the company's promise.

The very fact that DEC delivered drawings at the time the machine was delivered shows that DEC intended to deliver drawings as part of the contract. The blotches and skips in the present drawings clearly make them unsatisfactory.

On May 3, Steve Adrian wrote on his acceptance report: "Customer unsatisfied with quality and legibility of prints. Requests prints free from blotches and as legible

as those in Logic Handbook". Nothing happened. Did anybody look at this remark?

On May 14, I wrote in a letter to "Northeast Sales Department": "We have not truly accepted the order. I have refused to accept the circuit diagram copies, which are full of blotches. The copies evidently were made by a copying machine working defectively". My letter was never acknowledged or replied to in writing by anyone in Northeast Sales or at DEC.

Apparently only when I withhold part of the sales price when due or appeal to the President, do I seem to start to get action out of DEC.

If you treat many of your customers the way you are treating me, I am really sorry for what will be the fate of DEC in the next few years, as the word gets around, "Be wary of DEC -- try to buy your computer somewhere else."

I realize that DEC has many other things to do besides taking care of a customer like me, who is being really vocal and persistent about what he thinks he is entitled to. For this reason, and to show our good faith, I enclose a third payment (of $5200) on account of the purchase of the system. Please send me a receipt. This brings to $32,200 the amount we have paid, and leaves the balance of $8000 still unpaid.

We are ready to pay the balance of $8000 immediately on receipt of a satisfactory promise from an appropriate official at DEC to supply us not later than July 20 with (1) satisfactory drawings and (2) an adequate ASR 33 operating manual.

Yours sincerely,

Edmund C. Berkeley

Edmund C. Berkeley
Editor

ECB:hb
cc Mr. Kenneth Olsen

June 28, 1968

COPY

Mr. Edmund C. Berkeley
Computers and Automation
815 Washington Street
Newtonville, Massachusetts 02160

Dear Ed:

I want to thank you for the pleasant time we had at lunch on Tuesday. We definitely appreciate your feedback.

Enclosed are the things I promised to send you.

The man to contact here in the plant for any problems you have is Ed Kramer. I feel confident that Ed, as well as the others in our Northeast Sales Office, will be more than cooperative with you.

Sincerely yours,

Kenneth H. Olsen

KHO:ecc

Enclosures

digital

JUN 29 1968

June 27, 1968

Mr. Edmund Berkeley
Berkeley Enterprises
815 Washington Street
Newtonville, Massachusetts 02160

Dear Ed:

In reference to your recent inquiry of June 23, 1968, I offer the following comments:

1. Drawings - In regard to the drawings for the PDP-9 computer, we are presently in the process of converting our microfilm file such that we can generate "negative" type prints, as opposed to the "positive" type we have been using up to the present. This should tend to eliminate most of the objectionable "blotches and smears" that you have noticed on our drawings. Hopefully, within six to eight weeks, a new set of prints for your configuration will be forwarded to you.

2. ASR-33 Operating Instructions - Enclosed are a few sheets from the PDP-8/S User's Handbook which describe the teletype controls and indicators as well as the off-line operating procedure to be used with this model teletype. If you have any further questions concerning this unit, I will do my best to try and get answers for you.

I hope the above solemn promise to generate a satisfactory set of drawings for the PDP-9 plus this set of operating instructions for the ASR-33, has fulfilled the conditions that you have placed upon final payment of the balance due on your account.

Mr. Edmund Berkeley
Berkeley Enterprises
Newtonville, Massachusetts

June 27, 1968

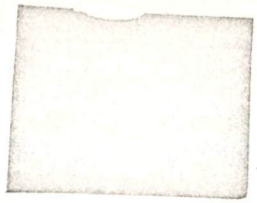
As proof of the effort we are putting into satisfying your requirements, I have enclosed a hair that I have taken from the head of your personal Application Engineer (me). You will notice that this hair is gray, this is a very recent condition. Seriously though, Ed, we will always do our very best to satisfy any reasonable demands you or any other customer might have.

Very truly yours,

E. A. Kramer

Edward A. Kramer
Applications Engineer

EAK:raa
Enclosure



computers
and automation

The magazine of the design, applications, and implications of information processing systems.

815 WASHINGTON STREET
NEWTONVILLE, MASSACHUSETTS 02160
617-332-5453

June 25, 1968

Mr. Kenneth H. Olsen
Digital Equipment Corp.
146 Main St.
Maynard, Mass. 01754

Dear Ken,

I thoroughly enjoyed having lunch with you in Maynard on June 24, and hope that we can get together again before too long and exchange some more ideas.

If I can be of help in improving the channels of information and education at DEC, via "computer-assisted explanation", or Phil Landry, or in other ways, I shall be most pleased. Also, if I can help DEC via the activities of "Computers and Automation", I shall be very glad. Please call on me.

I look forward to hearing from you the name of an appropriate person at DEC (would you call him an "ombudsman"?) who can help me as a customer of DEC resolve several problems including (1) good drawings, (2) a manual for the operating of the ASR 33, and several other not-very-big things.

With best wishes to you,

Yours sincerely,

Edmund C. Berkeley,
Editor

ECB/sru

cc. K. Olsen

digital EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

DISTRICT OFFICE
10210 N. E. EIGHTH STREET
BELLEVUE, WASHINGTON 98004
TELEPHONE: (206) 454-4058

June 26, 1968

Engineering Associates
P. O. Box 66516
Seattle, Washington
98166

Reference: Your Cancellation Letter - June 11, 1968

Attention: Mr. Tony Berger - President

Dear Mr. Berger:

We certainly regret receiving your letter indicating that the PDP-10 is not a satisfactory machine for your purposes. During several conversations prior to your letter of intent of March 11, 1968, you indicated a great deal of confidence in the PDP-10 and enthusiasm for it's capability.

It is my understanding that your conversation with Mr. Hindle and Mr. Lane at the Plant was most satisfactory and that you promised to provide data about your company and it's goals very soon. Mr. Lane held a reply to your letter of intent pending receipt of that data. Your machine was indeed scheduled for December, 1968 delivery, with proof of payment requested by mid June.

In conversations with you following mid March, neither Mr. Poulter nor I had any indication that you were losing confidence in DEC's ability to provide the equipment you required. Nor did we hear any comments regarding DEC's support capability.

The only words of dis-satisfaction I recall hearing from you was when you accused me of double-crossing you for not telling you that some one else was starting a Time Sharing Business in Seattle using PDP-10's. If you recall, I pointed out that I couldn't ethically do that and that the other party had no knowledge of your plans, either.

You have been a DEC user and a strong DEC supporter for several years, Tony. It's important that DEC retain that. Please accept my personal apology for this mis-understanding and let me know what I can do to change matters.

Very truly yours,

DIGITAL EQUIPMENT CORPORATION

Richard L. Wilkinson
Manager, District Office

RLW/jg

cc: T. Johnson, Vice President - General Sales Manager

P.S. If you have the data you promised Mr. Hindle, we would like a chance to see it.

4/13 Ted Johnson to follow through.

Engineering Associates

P. O. BOX 66516 SEATTLE, WASH. 98166
TEL. 206-242-8866

June 11, 1968

Dick Wilkinson
Digital Equipment Corporation
10210 N.E. 8th
Bellevue, Washington

RE: Letter of intent dated March 11, 1968

Dear Mr. Wilkinson:

Since we have not received a firm delivery date, price structure, or salesman service, we are hereby cancelling our letter of intent referred to above.

The type of system which we would require demands manufacturer service and continual reference to new and updated equipment available. Thus, the only inclination of the service that would be afforded us after the purchase is reflected by the type of service received prior to purchase. Since this service was non-existant, it is evident that it would not be available after purchase.

Sincerely yours,

Tony Berger

Tony Berger
President

TB:cl
cc: Ken Olson

June 26, 1968

COPY

Mr. William E. Baird
Director of Manufacturing
Digitronics Corporation
Albertson, Long Island,
New York 11507

Dear Mr. Baird:

Your letter of May 9, 1968 has been forwarded to me for response.

We have expanded our manufacturing facilities in Maynard as well as Canada; and we are establishing a facility in Puerto Rico to fabricate our printed circuit boards. It is our intention to have a manufacturing facility adequate to meet all our needs.

We have subcontracted historically on the basis of our short term loading capability. In the event we do have short term requirements, we will be more than pleased to ask your assistance by quoting specific jobs.

Yours truly,

Henry J. Crouse
Purchasing Manager

HJC/ams

cc: Mr. Kenneth H. Olsen ✓
Mr. Peter Kaufmann
Mr. Lon Beaupre

Original to Pete Lawfund 5/14

pioneers in data processing technology...

DIGITRONICS
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DIGITRONICS
DIGITRONICS
DIGITRONICS
DIGITRONICS CORPORATION

ALBERTSON, LONG ISLAND, NEW YORK 11507...(516) 484-1000

May 9, 1968

Mr. Kenneth H. Olsen, President
Digital Equipment Corporation
146 Main Street
Maynard, Massachusetts 01745

Dear Mr. Olsen:

As a result of expanding our Manufacturing facilities, we have excess capacity at our Albertson, Long Island plant. Because additional manufacturing work load will allow us to liquidate more overhead, we can offer low total hourly rates to customers needing farm-out facilities at this time.

Therefore, we are pleased to quote on any electronic assembly and wiring work of the following types that you may wish to farm out:

1. Printed circuit card fabrication (including etching, drilling, and eyeletting), parts preforming and assembly, flow soldering, and test. We can also obtain plated-through hole PC boards and perform the above assembly and test operations on them.

2. Wire and cable harness assembly.

3. Bench electronic assembly and wiring, using taper pin, soldered or solderless connectors.

4. Large, floor, system assembly and wiring. Also using taper pin, soldered or solderless connections.

continued . . . . .

Digital Equipment Corporation
Mr. Kenneth H. Olsen, President

May 9, 1968

In addition to the above types of farm-out work, in order to get the fullest cost advantage from integrated circuits in our products, we have developed a very economical IC packaging system. This system is described in the attached digICard brochure. If you have a need for IC boards, we have a low cost means of supplying them.

Our work force is experienced (average length of service is over four years) and well qualified to produce high commercial quality products of the above types. We do not do MIL Spec work.

Please contact me on telephone number (516) 484-1000, Extension 712 (or, if I am absent, Mr. Carl Brown on Extension 745) for any additional information or to arrange for quotations, plant visit, etc.

Very truly yours,

DIGITRONICS CORPORATION

William E. Baird
Director of Manufacturing

WEB:jr

Attachment

digital

June 26, 1968

Rev. Casper T. Keogh, O.S.B., Ph.D.
Chairman, Department of Physics
College of Arts and Sciences
St. John's University
Collegeville, Minnesota 56321

Dear Father Keogh:

Mr. Olsen has forwarded to me your letter of 10 June. I would welcome the opportunity to have you visit with us this summer. Let me suggest the 1st or 2nd of August. If these dates are not satisfactory, please let me know.

We have a vital interest in computers and education since educational institutions are our single largest customer. We feel we have made a vital contribution through the design, development, manufacture, and sale of low-price, high-performance, approachable machines. However, it is very seldom feasible for us to donate computers.

We are very interested in the role of the computer in education at all levels. I have personally watched one educational "experiment" with underpriviledged children, and I believe the computer has a very important role in such problems. I think the important aspect is that the computer permits "teacher-omitted" instruction to take place. It is probably important that the student can make mistakes in private. But let's save that for more detailed discussion of curricula, courses, and our computer systems when you visit.

Thank you for your inquiry.

Very truly yours,

Norman Doelling
Manager
Educational Marketing

ND:cmp

cc: Mr. Kenneth H. Olsen

DIGITAL EQUIPMENT CORPORATION, 146 MAIN STREET, MAYNARD, MASSACHUSETTS 01754
(617)897-5111 TWX: 710-347-0212 TELEX: 94-8457

6/14 Original to Norm Dolling to handle

SAINT JOHN'S UNIVERSITY
College of Arts and Sciences
COLLEGEVILLE, MINNESOTA 56321

Department of Physics

June 10, 1968

Mr. Kenneth H. Olsen, President
Digital Equipment Corp.
146 Main Street
Maynard, Massachusetts 01754

Dear Mr. Olsen:

St. John's University is a liberal arts college, located 85 miles northwest of the Twin Cities with an enrollment of 1,400 men. It has had rather strong departments in the field of science over the years. (Last year six students who graduated with a BA in physics from St. John's were awarded their Ph.D.s in physics from a variety of universities.)

We have several reasons for contacting your company at the present time. In the past your company has been generous to the cause of education in a number of ways. Besides generous donations of money and equipment to high schools, colleges, and universities we understand that you are favorably inclined towards helping students with fellowships and scholarships. A number of industrial companies also aid the cause of education by loaning educational audio visual aids.

We are now occupying our new two and one half million science center. After two years of occupancy we feel that your company could be of considerable help to our institution. Besides the possible donation of unused instruments and equipment that might be useful in a college laboratory, we would be interested in your comments on curricula and specific programs for the underprivileged (especially Negro and Indian) as well as the regular college student in the field of science.

We will be in your territory during the latter part of July or during the month of August. We would like to meet people of your company who might be interested in the education of scientists and engineers especially along the previously mentioned lines. In addition to the above we would be very grateful to have a tour of your facilities. We feel that knowledge gained by a tour of industrial laboratories keeps us up-to-date to a certain extent and enables us to inspire future students to apply for positions with companies that we have visited and learned to know.

Could you please route this letter to personnel in your company who have some interests along the previously mentioned lines. If you could let us know at what hour of the day and week it would be convenient for your group to meet with us we would be grateful.

Yours,

Casper T Keogh

Rev. Casper T. Keogh, O.S.B., Ph.D.
Chairman, Department of Physics

CTK:sw

Canada

June 25, 1968

Dear Fellow Employee:

I am pleased to inform you that Digital has established a Long Term Income Protection Plan for you.

This excellent program, to become effective August 1, is designed to provide you with an income in the event you should be unable to work for a prolonged period because of sickness or disability.

We believe that this is one of the best programs of its kind. It provides you with a substantial income when you are disabled, and payments can continue until you reach your 65th birthday! The cost is extremely low because the plan is underwritten on a group basis.

I urge you to enroll. Added to Digital's other insurance plans, the Long Term Income Protection Plan will help you and your family look forward to a financially sound future.

This plan is identical to the one available to Digital's employees in the United States. It represents another step in our continuing efforts to provide all Digital employees with equal, advanced, and comprehensive benefit programs.

Sincerely,

Kenneth H. Olsen
President

K. Olsen

June 25, 1968

Mr. Edward R. Werner
Leggat McCall & Werner Inc.
10 Post Office Square
Boston, Mass. 02109

Dear Mr. Werner:

Thank you for your letter of June 18 to Mr. Ken Olsen describing the new office/research building being developed on Route 128.

At this time the space you describe does not seem to fit into our long-range facility plans.

Thank you again for considering us.

Sincerely,

David C. Knoll
Manager
Production Engineering

DCK/kb

June 18, 1968

Mr. Kenneth N. Olsen, Pres.
Digital Equipment Corp.
Main Street
Maynard, Massachusetts

Dear Mr. Olsen:

As exclusive agents for the new owner, we would like to call your attention to what we consider to be one of the finest office/research locations on Route 128. The site, a 5 acre parcel, is located on Wyman Street in the Waltham Office and Research Park between Sanborn Company and the Ford Motor Company's new building.

The owner is planning to develop a major office building which will contain approximately 90,000 sq. ft. F. A. Stahl Associates is now engaged in preliminary design studies. It is intended that this will be one of the most attractive buildings along Route 128.

We will attempt to keep you advised as matters progress, but would like to hear from you as soon as possible if you think that your company would be interested in all or a major part of the building.

Sincerely,

Edward Werner

EDWARD R. WERNER

ERW/k

BCC: Ken Olsen

digital

June 24, 1968

Mr. Robert R. Barker
William A. M. Burden & Co.
630 Fifth Avenue
New York, New York 10020

Dear Mr. Barker:

Mr. Olsen has asked me to respond to your letter of June 14.

We are delighted that you found your visit to our Company useful and impressive. We felt that the group visiting with us was indeed a superior group of experts in the field of investments and analysis and, likewise, found the visit very stimulating.

We would indeed entertain a visit from you and your associates although, as you point out, we make every effort to minimize spending time in this way. Your letter suggested that possibly American Research and Development is treated in some special manner in this regard. I would like to correct that impression. Their relationship with us has been strictly as a shareholder and the involvement of AR&D in our business or in taking the time of our people has been minimal. Most of the involvements with AR&D have been initiated by those of us in the DEC management.

Since we are actively at work now in our year-end closing, I would like to postpone your visit, if possible, until August. If, on the other hand, there is some urgency from your point of view, I will do my best to accommodate you earlier.

Sincerely yours,

Harry S. Mann
Vice President, Finance

HSM/ml

DIGITAL EQUIPMENT CORPORATION, 146 MAIN STREET, MAYNARD, MASSACHUSETTS 01754
(617)897-5111 TWX: 710-347-0212 TELEX: 94-8457

6/18

c - Harry -
if he feels needs
ans., please reply.

William A. M. Burden & Co.
630 FIFTH AVENUE
NEW YORK, N.Y. 10020
Circle 6-9300

June 14, 1968

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

Dear Mr. Olsen:

I was a member of the group of financial people who had the pleasure of visiting with you yesterday afternoon and am writing now to extend my thanks both to you and to your associates for taking the time and trouble to educate us about Digital Equipment Corporation.

William A. M. Burden & Co. is a private investment company whose sole business is investing the capital of the Burden family in a relatively few superbly managed growth companies. For a long time we have felt that we should probably have an investment in Digital Equipment Corporation but we rarely, if ever, make an important investment until and unless we have a first hand impression both of the company and of the principal people who run it. Thus, the visit with you yesterday afternoon was most useful, for I came away thoroughly impressed with what I could see of Digital Equipment Corporation.

I realize that you and your associates make a policy of minimizing as much as possible spending time with your stockholders other than American Research & Development Corporation and am highly sympathetic with this policy -- knowing how time consuming financial analysts can be. On the other hand, when and if there might be an opportunity for me to bring my three partners up for a visit of two or three hours with you and your associates, I should very much like to do this. Except when limited by the rules of the visit, as was the case yesterday, we four travel and talk together wherever we go and I am really very anxious to have my partners gain the same kind of a first hand impression that I did yesterday.

Sincerely,

Robert R. Barker

RRB:ef

June 21, 1968

Mr. Jack A. Benz, President
Southern International Sales Co.
G. P. O. Box 1896
San Juan, Puerto Rico 00936

COPY

Dear Mr. Benz:

Your letter of June 11, 1968 was sent to my attention for response.

We are establishing a facility in San German, Puerto Rico to fabricate our modules.

Present plans dictate our supplying that facility with all materials from Maynard. We do have a large printed circuit board manufacturing facility here, and only seek subcontracting on printed circuit boards, when our capacity does not match our short terms needs.

However, we purchase material from a number of the principals you have listed.

Your offer of stocking material for us is of interest. In order for us to evaluate how we might work together, we will have to examine some specific parts. I suggest that Mr. Lon Beaupre review what we are procuring from your principals now, and request you offer us a quotation on the items.

You will be receiving a quote request shortly.

Yours truly,

Henry J. Crouse
Purchasing Manager

HJC/ams

cc: Mr. K. Olsen ✓
Mr. P. Kaufmann
Mr. L. Beaupre

Original and enclosure to Pete Kaufmann to answer 6/18
cc

Southern International Sales Co.

G. P. O. BOX 1896
SAN JUAN PUERTO RICO 00936

June 11, 1968

Digital Equipment Corporation
Maynard, Massachusetts

Attention: President

Dear Sir:

We were recently advised that your firm is in the process of establishing a plant at San German, Puerto Rico for the purpose of assembling digital modules and printed boards.

As our firm offers engineering representation to a number of Stateside electronic component firms we are most interested in your plant and particularly your plans on purchasing components locally. I am specifically interested with regards to one of our principals, Diceon Electronics at Naguabo, Puerto Rico, a division of Diceon Electronics of California. This firm is at present producing computor grade printed circuit boards here on the Island and we would be most interested in supplying your needs from a local source. May we hear from you in this regard?

In addition, I am enclosing a list of the firms we presently represent and the products they manufacture. I am sure many of these firms you are presently buying from and we would of course act as your local liaison man with these concerns. In addition we will stock locally any item you will require for production requirement which delivery might be a problem.

All in all we wish to work with your company in any way possible and welcome you to the growing list of electronic firms here.

Looking forward to your early reply.

Sincerely,

Southern International Sales Co.

Jack A. Benz
President

Enclosure:

June 21, 1968

COPY

Mr. Ross Bower
Account Executive
Management Recruiters, Inc.
75 Pearl Street
Suite 200
Hartford, Connecticut 06103

Dear Mr. Bower:

Because of his busy schedule and the fact that he is out of town again today, Mr. Olsen asked me to respond to your letter of June 11th concerning Mr. Hughes.

I did take the liberty of showing Mr. Hughes' resume to Dick Best, our Chief Engineer, but he did not remember him from his association with IBM.

We appreciate your forwarding his resume to us, but, after reviewing his background and giving it much consideration, we do not see any way that we could effectively use his experience at this time.

Sincerely yours,

(Mrs.) Elsa C. Carlson
Secretary to the President

ecc

June 21, 1968

COPY

Mr. Ross Bower
Account Executive
Management Recruiters, Inc.
75 Pearl Street
Suite 200
Hartford, Connecticut 06103

Dear Mr. Bower:

Because of his busy schedule and the fact that he is out of town again today, Mr. Olsen asked me to respond to your letter of June 11th concerning Mr. Hughes.

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Sincerely yours,

(Mrs.) Elsa C. Carlson
Secretary to the President

ecc

Management Recruiters, Inc. OF HARTFORD
75 PEARL STREET • SUITE 200 • HARTFORD, CONNECTICUT 06103 • PHONE: (AREA 203) 524-8792
Offices in all Major Cities

June 11, 1968

Digital Equipment Corporation
146 Main Street
Maynard, Massachusetts

Attn: Mr. Kenneth Olsen-President

Dear Mr. Olson:

I have enclosed, as per your request, the resume of Mr. Hughes whose background we briefly discussed today.

After due consideration you may wish to persue this matter further. If such is the case please do not hesitate to contact me. Mr. Hughes is available for interviews at the present time and will be in the immediate Boston area on 6/13/68.

Thank you for your consideration.

Sincerely,

Ross Bower

Ross Bower
Account Executive

Encl: 5

RB:dc

Management Recruiters, Inc. OF HARTFORD
75 PEARL STREET • SUITE 200 • HARTFORD, CONNECTICUT 06103 • PHONE: (AREA 203) 524-8792
Offices in all Major Cities

EDUCATION:

B. Sc. in Electrical Engineering from Brown University in 1948.
Graduate courses from the University of Syracuse.

MILITARY:

Honorable discharge from the U.S. Navy World War II
No reserve status.

PERSONAL:

Birth: Providence, Rhode Island. October 31, 1923
Status: Married with three children
Weight: 190 lbs., Height: 5 ft. 11 in.
Health: Excellent

EXPERIENCE:

1965 to Present
Manager of Electronics Research and Development for the Olivetti Underwood Corporation. Responsible for market research proposals, budget estimates, cost control and personnel relations. Design and development of computers and computer peripherals, electronic, programmable, desk calculators, and office accounting machines. Experience in the use of discrete and integrated circuit components, circuit and logic design

1960 to 1965
Project Engineer with the Hamilton Standard Division of the United Aircraft Corporation in charge of digital systems design of special purpose mil spec digital computers predominantly used in aircraft and sophisticated missile checkout. Proposals and contacts for prospective Federal Government Business. Also design of time shared computer and multiplexing terminals.

1948 to 1960
Engineering Development Manager at International Business Machines Corporation for large scale U.S. Air Force SAGE Computer Display System. Design responsibility for drum and core memory systems. Design activity in electronic and electromechanical office machines, particularly large electric accounting machines.

Management
Recruiters, Inc. OF HARTFORD
75 PEARL STREET • SUITE 200 • HARTFORD, CONNECTICUT 06103 • PHONE: (AREA 203) 524-8792
Offices in all Major Cities

ORGANIZATIONS:

Member of AIEE
Treasurer currently and for past two years of The Hartford Engineers Club.

SUMMARY OF QUALIFICATIONS:

Graduate engineer with a broad range of engineering-manufacturing experience in the computer-business machine and electronics industry. R&D Manager for total integration of large scale electronic equipment including budget estimates and cost control, both commercial and military. Marketing research on products relating to the digital computer field. These capabilities stem from several years of successful participation in electronic and electro-mechanical design activities.

digital

June 19, 1968

Mr. James R. Moss
35321 Rutherford
Mt. Clemens, Michigan 48043

Dear Mr. Moss:

I apologize for the delay in our company's responding to your letter to Mr. Olsen, of March 19, 1968. Your letter was temporarily misplaced, and has just recently found its way to my office.

We do thank you for sending us the description of your invention relating to an electronic keyboard and a character printer. However, we cannot consider this material unless you agree to disclose it to us on a non-confidential basis. That is, we must be free to disclose or make use of such information in any way we see fit, without any obligation to compensate you for it, except insofar as we are required to abide by any United States patents you may have.

You will understand why we cannot accept confidential disclosures if you realize that many ideas that people think are new have actually been previously generated by someone else and, indeed, may have already been patented or published in technical literature. Also, it is possible that an idea submitted to us may already have been developed by someone working for us who has no knowledge whatsoever of your disclosure to us. In fact, the idea may even have been previously submitted to us by someone such as you who has no connection with Digital Equipment Corporation. Therefore, in order to avoid possible controversy about our use of ideas submitted to us, we will not accept such information in confidence.

Your disclosure of invention is, therefore, being held in this office without being read by any of our technical employees until you agree to our considering it on the foregoing conditions; namely, that your

DIGITAL EQUIPMENT CORPORATION, 146 MAIN STREET, MAYNARD, MASSACHUSETTS 01754
(617)897-5111 TWX: 710-347-0212 TELEX: 94-8457

sole recourse for compensation for or in reference to any information will be under valid United States patents owned by you. If you agree to these conditions, kindly indicate your assent by signing the enclosed copy of this letter and returning it to me.

If we do not receive your written agreement within ten days, we shall consider same as being a negative answer to our request, and there will be no need for you to forward to us the description and design sketches referred to, by you, in the aforesaid letter.

Very truly yours,

DIGITAL EQUIPMENT CORPORATION

Edward A. Schwartz
General Counsel

EAS:o
Enc.

cc: Kenneth H. Olsen ✓

Accepted:

_____

Original to Ed Schwartz with note,
"This is the sort of thing we're
interested in, but don't know how
to go about contacting them."

March 19, 1968

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

Dear Mr. Olsen:

Would a young, successful company as Digital Equipment Corporation be interested in an electronic keyboard and a character printer whose designs are based on high reliability, mechanical simplicity and product flexibility? The applications for such devices are many. A few which immediately come to mind are: a communications terminal, computer input-output, printing electronic calculator, an accounting machine, and an electronic office typewriter.

The actuating keys use a tested, reliable magnetic switching technique. There are no contact bounce or contact wear problems to contend with. Each key station is a separate unit and can be mounted to a panel in a manner similar to mounting a push button switch. Only 18 wires are required to connect as many as 64 keys.

The printer uses a new way of applying proven methods used in the line printer field. There are no friction clutches or brakes; the operator is able to view the line of type as it is being entered, and the unit can provide good quality output at the rate of 15 characters/second. By putting more requirements on electronics, advantages are attained resulting from the lowering costs of integrated circuits and from less servicing costs.

I have done much of the preliminary work on such devices and have reached the point at which outside support is required. I am, therefore, seeking an interested company whose product line would be enhanced by these units. I hope to make arrangements (on an employment or contract basis) whereby I could lead the development of these or similar future products to the stage where your manufacturing department could take it over.

My background has been four years in line printer development as senior project engineer (mechanical) for Data Products Corporation and Control Data Corporation. For three years I did peripheral equipment and interface design for Data Systems Incorporated. I am presently self employed as manager and part owner of an office machine business, National Office Equipment, Incorporated. Any additional information concerning my qualifications (including business and personal references) will be gladly sent to you upon request.

Enclosed you will find an Agreement to Review Ideas which is intended to constitute a 'meeting of the minds', thereby establishing that the design ideas, which I have developed, are not public property and also that you are protected against any unwarranted claims.

If you are interested in pursuing this matter in greater detail, I would appreciate having you or an interested party sign and return the enclosed agreement. I will be happy to forward the description and design sketches to you, or better still, discuss them with you in person at your convenience.

Sincerely,

James R Moss

James R. Moss
35321 Rutherford
Mt. Clemens, Michigan 48043
(313) 791-1543 Res.
(313) 881-7130 Bus.

JRM:mam

Enclosure

AGREEMENT TO REVIEW IDEAS

We, the undersigned, agree to receive in confidence design ideas for an electronic keyboard, a keyboard arrangement which helps eliminate entry errors (as applied to a bookkeeping machine) and a character printer to be submitted by James Moss for our consideration.

It is further understood that we assume no responsibility whatever with respect to features which can be demonstrated to be already known to us. We also agree not to divulge any details of the idea submitted without permission of James Moss or to make use of any feature or information of which the said James Moss is the originator without complying with either or both of the following requirements:

1. To employ or contract said James Moss, at a mutually agreeable wage, for the purpose of developing a product using any or all of the design ideas.

2. To make a payment of compensation to be fixed by negotiation with the said James Moss or his lawful representative.

It is specifically understood that, in receiving the ideas of James Moss, the ideas are being received and will be reviewed in confidence; and that, within a period of 30 days, we will report to said James Moss the results of our findings and will advise whether or not we are interested in negotiating for the engineering development of, and/or the right to use said design ideas.

Company_____

Address_____

City_____ State_____ Zip_____

Official to receive disclosures (please type)

_____ Title_____

Date_____ Signature_____

Accepted: _____

James Moss

June 19, 1968

Mr. M. J. Rathbone, Chairman
National Fund for Medical Education
2 West 46 Street
New York, New York 10036

Dear Mr. Rathbone:

We have received your letter of May 7 to Mr. Olsen regarding a contribution to the National Fund for Medical Education. Our 1968/69 contributions will be considered in the Fall and we will certainly include the Fund in our considerations.

Thank you for your informative letter.

Sincerely,

Winston R. Hindle, Jr.
Vice President

WRH/bwf

bcc: Ken Olsen
Dimitri Dimancesco

5/7
Original and Enclosures
to Wm Riddle

NATIONAL FUND FOR MEDICAL EDUCATION

2 West 46 Street, New York, N. Y. 10036 JUdson 6-3490

May 7, 1968

Dear Mr. Olsen:

The generous contributions to the National Fund for Medical Education from nearly a thousand corporations and foundations helped the Fund assist more than a third of the nation's medical schools to improve and expand their educational and teaching techniques.

In the past two years, the general impression seems to have been that all is now well with the medical schools because of the indicated great governmental support one reads about in the papers. It is true that the Federal Government, through an extraordinary number of different agencies, has developed more and more health programs through the medical schools, with a tremendous increase in Federal spending in recent years. However, the operating costs of the medical schools, plus the added costs to the schools of many of these government programs, has risen even more. This has had such an effect that one thing stands out very prominently: the precarious financial position of some of these schools is such that their very survival is at stake.

The problems are not of the schools' making. They have been thrust upon them by the demands of the public for better and more far-ranging health care. In order to meet these demands, the medical schools are facing a crisis which is becoming more and more evident.

To help the schools meet this crisis, the NFME believes that increased support must come from private sources. It has concentrated on obtaining money from private sources, and through its Developmental and Innovative Grants, channeling this support to those areas considered to be most productive by the medical

schools and NFME. These grants have aided the streamlining of the educational process through new teaching techniques, teaching tools, and studies of selection of students. In addition, these grants have helped the schools respond to the public need by initiating ways and means of training doctors in community health programs and family medicine.

The Fund's Annual Report, listing the grants awarded and those who helped make them possible, is enclosed. I hope you will take the time to read it through, and then make a generous contribution in 1968.

Sincerely,

M. J. Rathbone

M. J. Rathbone
Chairman

Mr. K. H. Olsen, President
Digital Equipment Corp.
Maynard, Mass.

Enc.

June 19, 1968

Mr. C. L. Meek
Assistant Director
State University of New York at Buffalo
4250 Ridge Lea Road
Amherst, New York 14226

Dear Mr. Meek:

Thank you for your letter of May 28, 1968, and I am sorry for the delay in answering.

Enclosed are copies of DEC's current computer price lists which I believe will supply the information your require.

If we can be of further assistance, please feel free to contact us.

Regards,

R. L. Lane

RLL:je
Enclosures
cc: Mr. K. Olsen

Original to Bob Lane to answer.

Office of Computer Services

STATE UNIVERSITY OF NEW YORK AT BUFFALO

Computing Center

4250 Ridge Lea Rd.

Amherst, N.Y. 14226

Telephone 831-1245

Area Code 716

JUN 03 1968

May 28, 1968

Digital Equipment Corp.
Maynard, Massachusetts 01754

Gentlemen:

During 1967 I prepared a glossary of computing terms, abbreviations, buzz words, etc. (574 pp.) for the SHARE organization (a users group employing large scale IBM scientific hardware). Included was an appendix of product numbers and their descriptions a page from which is attached for your information.

It is my intention to augment this appendix section with similar descriptions of non-IBM hardware, and would like to know with whom I should communicate in your organization to obtain such a list with descriptions.

In addition, it is my intention to include additional definitions (from non-IBM systems) of terms, abbreviations, etc. and would be happy to have copies of any glossaries you have published, or which form appendices to your manuals.

Sincerely,

C. L. Meek
Assistant Director

CLM: db

6420 ACCOUNTING MACHINE -- (101) PROVIDES ALPHAMERIC STORAGE CAPABILITY AND CAN BE CABLE CONNECTED TO THE 6425 -MAGNETIC LEDGER UNIT- TO PROVIDE A -MAGNETIC LEDGER CARD ACCOUNTING SYSTEM-.

6422 AUTOMATIC LEDGER FEED -- (101) PROVIDES AUTOMATIC FUNCTIONS FOR A 6425 MAGNETIC LEDGER UNIT.

6425 MAGNETIC LEDGER UNIT -- (101) THE MAGNETIC LEDGER CARD UNIT FOR A 6420 ACCOUNTING MACHINE.

6426 CARD PUNCH -- (101) ALPHAMERIC CARD OUTPUT UNIT FOR 6405, 6410 AND 6420 ACCOUNTING MACHINES. (NOTE.. CARD I/O CANNOT BE MIXED WITH PAPER TAPE I/O).

6428 CARD READER -- (101) ALPHAMERIC CARD INPUT UNIT FOR 6405, 6410 AND 6420 ACCOUNTING MACHINES. (NOTE.. CARD I/O CANNOT BE MIXED WITH PAPER TAPE I/O).

6454 PAPER TAPE READER -- (101) -- (101) ALPHAMERIC PAPER TAPE OUTPUT UNIT FOR 6405, 6410 AND 6420 ACCOUNTING MACHINES. (NOTE.. CARD I/O CANNCT BE MIXED WITH PAPER TAPE I/O).

7010 DATA PROCESSING SYSTEM -- (520-1694) THE MAIN FRAME HAS A BINARY CODED DECIMAL, VARIABLE-LENGTH WORD INTERNAL DATA REPRESENTATION WITH FULL ALPHAMERIC REPRESENTATION THROUGHOUT, VARIABLE INSTRUCTION LENGTH AND FORMAT, VARIABLE RECORD LENGTH, A SELF-CHECKING 8-BIT CHARACTER WHICH HAS A 6-BIT ALPHAMERIC VALUE (BA8421), A CHECK BIT TO GIVE ODD PARITY, A WORDMARK BIT FOR FIELD IDENTIFICATION, AND WITH CORE STORAGE AVAILABLE IN SIZES FROM 40,000 TO 100,000 POSITIONS. THE SYSTEM PROCESSES 1410 PROGRAMMING SYSTEMS UNALTERED. INTERNAL PROCESSING SPEED IS APPROXIMATELY 3.5 TIMES FASTER THAN 1410 AND ABOUT 2.75 TIMES FASTER THAN 1410 WITH ACCELERATOR FEATURE. THE SYSTEM HAS A 2.4 MICROSECOND, 2-CHARACTER PARALLEL MEMORY. THE FOLLOWING PERIPHERAL GEAR IS ATTACHABLE.. 1415 MOD 2, 1414 MODS 1 2 3 4 5 7 AND 8, 729 II IV V OR VI, 7330, 1402 MOD 2, 1403 MODS 1 AND 2, 1301 MODS 1 AND 2, 7750 MODS 1 2 AND 3, 1011, 1009, 1014.

7030 DATA PROCESSING SYSTEM -- (A22-6530) /NO LONGER AVAILABLE/ A DEFENSE SYSTEM, THE MAIN FRAME HAS A BINARY, FIXED-LENGTH 72-BIT WORD, 8 OF WHICH WERE NON-ADDRESSABLE REDUNDANCY CHECK BITS, AND A ONE-WORD OR ONE-HALF-WORD INSTRUCTION LENGTH. STORAGE READ-WRITE CYCLE TIME IS 2.18 MICROSECONDS, AND THE SYSTEM IS EQUIPPED WITH FULL LOOK-AHEAD AND OVERLAPPED STORAGE. THE FOLLOWING PERIPHERAL GEAR IS ATTACHABLE.. 729 IV, 7503, 7553, 1403 MOD 2, 7152, 7612, AND 7302.

June 18, 1968

Mr. Edmund Berkeley
Computers and Automation
815 Washington Street
Newtonville, Mass.

Dear Ed,

I have recently ordered a set of PDP-9 prints for your computer from our print room. The copies I received do not appear to be of much improvement over the prints you already have. I believe, however, that these prints together with the fine set of photo-offset schematic drawings available in the maintenance handbook constitute a more than adequate vehicle for describing the internal workings of your PDP-9. If there is ever any confusion as to which set of prints is correct, the large set delivered with your equipment has priority.

If at any time you feel that the black marks and blotches on your large set of prints poses an insurmountable problem, and causes abnormal delays in your schedule, I will try my best to seek another means of satisfying your requirements.

In regard to the ASR-33 Teletype that was ordered with your system, I should like to make reference to the section of the Small Computer Handbook which describes in detail the operating procedures for the ASR-33. Either myself or any of our Field Service people will be more than happy to answer any additional questions you may have concerning the Teletype if they can not be clarified by your studying the Small Computer Handbook writeup on the subject.

Very truly yours,

EAK:gw

Edward A. Kramer
Applications Engineer

6/18 copy to John Jones to follow up on.

COMPUTERS AND AUTOMATION
BERKELEY ENTERPRISES, INC.
815 WASHINGTON ST.
NEWTONVILLE, MASS. 02160

June 14, 1968

Northeast Sales Dept.
Digital Equipment Corp.
146 Main St.
Maynard, Mass. 01754

Gentlemen:

On May 3, your field representative, Mr. Steve Adrian, and I checked out the PDP-9 computer which we ordered. We accepted everything except the engineering drawings, which I refused to accept, because they had been reproduced showing a great many extra black marks and blotches here and there all over the prints and quite confusing marks and blotches, which had clearly occurred because of a copying machine in defective condition. I asked for satisfactory drawings, and I did not accept the computer for lack of them.

It is now June 13, about five weeks later. I have not been told officially if satisfactory engineering drawings will be provided. All I have been told (a couple of weeks ago) was that Mr. Ed Kramer (our field representative) was seeing what he could do about it.

We have paid 1/3 of the cost of our computer $13,000. We are due to pay the balance of 2/3 of the cost of our computer on June 24. We would certainly like to receive from you before June 24 a satisfactory set of engineering drawings.

Another item that we need to have (and which we asked for on May 3) is adequate, written, operating instructions for the off-line ASR-33 teletype, stating how it is operated. We do have a two-volume maintenance manual for the ASR-33, but we have never received even a one-volume manual of operating instructions for it. Nor have we ever received a reply to our inquiry as to whether DEC would or would not provide this. There must exist a written manual of instructions for its operation, and it should be quite reasonable for us to have a copy.

We would much appreciate receiving information about these two matters before June 24.

Yours sincerely,

Edmund C. Berkeley
Editor

ECB:hb
cc Mr. Kenneth Olsen, President

digital

June 18, 1968

Worldwide Agency Association
1255, Kami Kodanaka
Kawasaki City, Japan

Attention: Mr. H. Matsuoka

Reference: Your letter of June 5, 1968, and samples to Mr. Kenneth H. Olsen, President, D.E.C.

Gentlemen:

We have examined your enclosed samples and specifications and find that our requirements for unbased lamps are extremely limited.

We do, however, use a substantial quantity of bi-pin lamps and are submitting for your inspection our print 12-05550. We hope that this is a style that you can manufacture. We would appreciate receiving a quotation or price and delivery for up to 500,000 pieces.

Sincerely,

Robert H. O'Connor

Robert H. O'Connor
Buyer

RHO/bp

Enclosure: Print 12-05550

CC: Kenneth H. Olsen
Henry Crouse

DIGITAL EQUIPMENT CORPORATION, 146 MAIN STREET, MAYNARD, MASSACHUSETTS 01754
(617)897-8821 TWX: 710-347-0212 TELEX: 94-8457

6/14
Original and enclosures to Henry Crouse to take care of.

Worldwide Agency Association

1255, Kami Kodanaka, Kawasaki City, Japan

TELEX : TK2879 EXPRTJAP TOKYO
Cable: "WORLDWIDE" KAWASAKI
TEL : 0447-3-2794

● Importers & Exporters
● Indenting Agents

現 品 票	
品 名	5V-60MA
数 量	2
製造年月日	68・5
製造記号	K
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58

June 5, 1968

Mr. Kenneth H. Olsen, President
Digital Equipment Corp.,
146, Main St. Maynard,
Mass. 01754, U. S. A.

Sub: Miniature Lam
Computers, El

Dear Mr. Olsen :

We have known your company by the courtesy of The USA Embassy in Tokyo, that you are one of the biggest manufacturers of computers and other aerospace items in the States.

We are much pleased to have this opportunity of informing you that we have long been working as the sole representative of these job-shops in Japan for the supply of various precision machined parts to many Electronics, Computers, Aerospace and Microwave manufacturers in the States, which are mostly made of materials such as Aluminium, Brass, Copper, O.F.H.C., Diamond, Ruby, Saphire, Invar, 300 series Stainless Steel and so forth.

We wish to take the advantage of this opportunity to airmail you two pieces of sample TIPLESS LAMPS with specification for your immediate reference.

As you are well aware we believe, this kind of lamps has been cherished for in the field of Computers, Aerospace, Electronics etc. and believe you are also trying to locate one of the Highest Fidelity Quality for your present program.

Prices vary from @$.147 to @$.37 apiece F.O.B. Japan according to the specification of each lamp, and manufacturing capacity is not less than 100,000 pcs. assorted a month.

For your immediate and direct contact, you can communicate with us through your International TELEX machine addressing to TK2879 TOKYO with Answer Back Code of EXPRTJAP which is kept open for 24 hours every day, or to "WORLDWIDE" KAWASAKIJAPAN in case of International Cable.

Please examine into the samples & specification attached and let us know WHAT NUMBER OF LAMP, HOW MANY and HOW SOON YOU WANT, and we are most pleased to react at once.

Yours very truly,

WORLDWIDE AGENCY ASSOCIATION

H. Matsuoka

H. Matsuoka
Representative

HM:ym
Encls:

June 17, 1968

COPY

Mr. William B. Kehl, Director
Campus Computing Network
University of California
Los Angeles, California

Dear Mr. Kehl:

Mr. Olsen requested I contact you regarding your letter of May 17, 1968. Don Murphy and Ashwani Chaddha are presently in the final stages of a proposal to develop the equipment you require. At this point, it appears that the proposal will be approved and you will probably hear from Don within the week.

Very truly,

Robert F. Collings
Assistant to the President

RFC:mc

cc: Kenneth H. Olsen

UNIVERSITY OF CALIFORNIA, LOS ANGELES

BERKELEY • DAVIS • IRVINE • LOS ANGELES • RIVERSIDE • SAN DIEGO • SAN FRANCISCO SANTA BARBARA • SANTA CRUZ

LOS ANGELES, CALIFORNIA 90024

Office of the Director of Computing

May 17, 1968

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

Dear Ken,

It has been some time since I have had an occasion to call on you for help.

We are faced by a real problem. We want to be able to operate CCI terminals, for example, as well as other devices, over dial-up lines remotely.

When Ashwani Chaddha and Donald Murphy visited us from Maynard, they talked with our hardware people about the possibility of D.E.C. designing and building a modified PDP-8I to handle 10 voice grade lines. I think you would find a real market for it on IBM 360 systems. The IBM 2701 solution is both inadequate and expensive. As I understand it, your people together with ours came up with some pretty good specifications.

As we mentioned at that time, we would develop the software to interface to OS/360 for you, again according to some commonly worked out specs and this may defray a significant part of the cost for us.

Would you please let me know how this proposed plan now sits as we will have to take steps along these lines.

We are enjoying the loan of the PDP-8S currently in WDPC where our staff, which had not been familiar with D.E.C. equipment, is having a ball.

With best wishes,

Bill

William B. Kehl
Director
Campus Computing Network

WBK:pak

cc: R.Halpern
R.Carter

June 17, 1968

Mr. D. H. Butani, Editor
PRODUCTIVITY JOURNAL
National Productivity Council
38 Golf Links
New Delhi, INDIA

Dear Mr. Butani:

Mr. Kenneth Olsen, President of this Company, has referred your recent letter to me.

We would be happy to prepare a special contribution for your issue of PRODUCTIVITY JOURNAL on Computerization.

I am enclosing some literature on the Company, its products and the markets these products serve.

Before proceeding, could you answer several questions for me:

.How long an article would you like?

.How technical should it be? (Does your publication go to engineers knowledgeable about computers or businessmen interested in the subject?)

.Is there any special area you would like highlighted so as not to duplicate what others are preparing? (Design, manufacture, installation, application in a particular industry)

I look forward to hearing from you soon.

Very truly yours,

AE

Alan L. Erskine
Public Information Manager

ALE/smf

cc: K. H. Olsen ✓
A. Kluchman

6/5/68
Original to Allen Kluchman to handle

Gram : PRODUCTIVITY 6/14 Allen Erskine to ans.

TELE : 618807, 619102
618773, 618731

NATIONAL PRODUCTIVITY COUNCIL

38 GOLF LINKS, NEW DELHI-3

NO. 46002

D.H. BUTANI
EDITOR

27 May, 1968

Dear Mr. President :

Your good name has been suggested to me by the American Embassy in New Delhi for a special contribution on any aspect of computer systems: manufacture, installation, programming, utilisation, etc. etc. We are bringing out a special issue of the Productivity Journal* on the subject of Computerisation. The deadline for the submission of material is the end of July 1968. May I say that we shall consider your contribution as most valuable.

In case you desire to take advertisement space in this Special Issue - which is not the purpose for which I am writing this letter - you may contact our Business Manager, 156-Golf Links, New Delhi.

As Editor, however, I shall be looking out for your special contribution.

With the warmest regards,

Truly yours,

D H Butani

The President
Digital Equipment Corporation
Mass, U.S.A.

* A copy of the Journal has been sent to your address, but it will take some time to reach you due to despatch by surface mail.

digital

June 17, 1968

Mr. Russell B. Adams, Jr.
Bureau Manager
BUSINESS WEEK
607 Boylston Street
Boston, Massachusetts

Dear Russ:

Glad to hear you'll be coming out here Friday.

I have reviewed a number of our publications and while I could back a truck up to your door with material, I think the attached annual report and fact sheet will give you some basics.

Now to some of the more current and rambling thoughts I told you I would get on a piece of paper prior to your visit:

.DEC has broken a host of price barriers with full-scale digital computers. It was the first to break the $100,000 barrier; the $50,000; the $30,000; the $20,000 and the $10,000. Next month it will announce a new computer which will bring the price even lower--$8,500. The company now ranks within the top three or four manufacturers in number of systems installed. DEC also is a pioneering firm. Its engineers developed the first CRT display for a computer, introducing the device at the NEREM Show in 1962. It was the first to build and install a large, time-sharing computer three years ago. It has set an enviable precedent in bringing the price of small computers within the reach of many who would not otherwise be able to consider using them. It has led in the application of computers to the scientific and research markets. It has evolved products by applying new technology.

.Initially, DEC supplied computers to a knowledgeable group who developed much of their own software. As the years passed, the company moved from a hardware manufacturer to a hardware and software supplier for selected applications. In the last year, DEC has introduced several computer-based systems, built around proven small computers, and offering total solutions to problems in several different markets at a reasonable cost. Examples of these are in numerical control, typesetting, gas chromatography, data communications and education.

-cont.-

DIGITAL EQUIPMENT CORPORATION, 146 MAIN STREET, MAYNARD, MASSACHUSETTS 01754
(617)897-8821 TWX: 710-347-0212 TELEX: 94-8457

.To provide these "total solutions", the company has taken a small computer, developed software to meet specific problems and designed "interfaces" using its own modules. In this area, DEC has a unique capability, since it started as a module supplier in 1957. While it uses a substantial percentage of its module production in its own products (computers and interfaces) it markets a variety of these to a host of customers. DEC has become the world's leading manufacturing supplier of logic modules, manufacturing between two and three million a year from automated production lines.

.At the same time the company has led in the module and small computer areas, it has a few firsts in the large time sharing field. While many manufacturers are designing or manufacturing their first time sharing system, DEC began shipping its second model late last year. Production of the PDP-10 has been increased twice in the last six months to meet demand.

.On the subject of production, DEC has automated much of its manufacturing. In a textile mill which years ago combined with other mills in the area to provide the backbone of New England's economy, DIGITAL typifies the revolution in this geographic area's business. Although I have not looked into the figures, I'm sure Massachusetts ranks high in the number of electronics and computer companies as it did a few decades ago with textile firms. This Maynard plant has been converted from looms to computers and today houses some of the world's most sophisticated equipment for manufacturing computers on a mass production basis.

.DEC is a technically oriented company with a conservative approach to management. Since it opened its doors slightly more than a decade ago, it has never had an unprofitable quarter. Sales and earnings have increased steadily in an industry where many companies have either failed or are still on an unprofitable basis.

.The two new computers being introduced next month are extensions of existing product lines. The new systems represent the application of new technology to markets we could not previously serve. One, the PDP-8/L, will open new areas where full-scale digital computers have not been able to be used. Being able to market this system at $8,500 is expected to add even more impetus to a rapidly expanding small computer market. The second system, the PDP-9/L, is an extension of the company's PDP-9. More than 200 of these are installed throughout the world. The 9/L will be priced at $19,900 and is expected to find a ready audience for 18-bit systems who may want to expand in the future.

I could go on for another day or so with random thoughts such as these. I hope these points will give you a little insight into what DEC is all about. If there is anything I can do before you get here, just give me a buzz. I look forward to seeing you Friday.

Best regards,

Alan L. Erskine
Public Information Manager

smf

DIGITAL EQUIPMENT CORPORATION

digital

June 14, 1968

Mr. Richard K. Bennett
Signatron, Inc.
Miller Building
594 Marrett Road
Lexington, Massachusetts 02173

Dear Mr. Bennett:

Mr. Olsen has given me a copy of your report "BUILD..." and asked that I pass my comments along to you.

As you are probably aware, our current approach to software development is along more conventional lines. Our software systems are in fact developed independently for our various machines, largely because of our desire to provide optimum performance by tailoring the implementation to specific configurations. This is especially true for our small computers. Another reason for our conventional approach has been our lack of familiarity with techniques such as the one you are pursuing. I have heard of similar approaches that have been taken on behalf of the Department of the Navy by a CEIR affiliate, Leo Cohen Associates, but have not seen the results contrasted to more conventional methods.

I was extremely interested in your report, and I am circulating it among our programming staff for their comments.

I would very much appreciate receiving any further information you may have along these same lines, so that we might have a basis for further discussion should we become more interested in pursuing these techniques.

Sincerely,

Lawrence J. Portner

Lawrence J. Portner
Manager of Programming

LJP:gm

cc: K. Olsen

SIGNATRON, Inc.
research and consulting
area code 617 • TEL. 862-3365
MILLER BUILDING • 594 MARRETT ROAD • LEXINGTON, MASSACHUSETTS 02173

April 11, 1968

Mr. Ken Olson, Pres.
Digital Equipment Corporation
146 Main Street
Maynard, Massachusetts

Dear Ken:

I am enclosing a copy of a report on a new approach to the design of computer languages.

I would appreciate any comments you may have.

Yours truly,

Dick

Richard K. Bennett

RKB:epl
Enc. "BUILD...

June 14, 1968

T.D.V. Lawrie, M.D.
University of Glasgow
Glasgow, W.2
Scotland, United Kingdom

Dear Dr. Lawrie:

Enclosed is a set of tapes for the PDP-8 (8K) Fortran II System.

Please excuse the fact that we have sent you proof copy of the Manual. Mrs. Korsman will send you a published manual next week.

Sincerely,

Roger Pyle
PDP-8 Software Development

cc: Messrs. K. Olsen ✓
B. Korsman
L. Portner

c/n Original to Larry Portner to answer

Ans. [illegible] Pit.
June 1

TEL: WESTERN 8855
EXT.

TDVL/EWJ

Royal Infirmary,
Glasgow.

THE UNIVERSITY,
GLASGOW, W.2
Scotland.

May 14th 1968

The President,
Digital Equipment Corporation,
Maynard,
Mass
U. S. A.

Dear Sir,

I read in the DEC sales pamphlets quite some time ago that an 8K Fortran compiler was available. This has not appeared yet to my knowledge in this country and I would be grateful for any information you could supply on the likely availability of this package.

I am at present holding back on a decision as to whether MACRO or FORTRAN will be used for a comprehensive program. The receipt of any advance literature,even without tapes, could perhaps enable this decision to be made now.

I would appreciate a reply at your earliest convenience.

Yours sincerely,

T. D. V. Lawrie

T. D. V. Lawrie, M. D.

June 14, 1968

Professor Kalon Kelley
31 Winchester Drive
Lexington, Massachusetts 02173

Dear Professor Kelley:

I would be very happy to talk with you about your idea for data acquisition. If you will call me sometime during the day, or at home in the evening, I would be happy to give you my candid reaction to your idea, and maybe some suggestions as to what the next step should be.

My office telephone number is Arlington 646-8600 or Concord 369-5055, and my number at home is Lincoln 259-9083.

Sincerely yours,

Kenneth H. Olsen

KHO:ecc

DEPARTMENT OF MODERN LANGUAGES
AND LINGUISTICS

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

CAMBRIDGE, MASSACHUSETTS 02139
20E-225
June 11, 1968

Dr. Kenneth H. Olsen
President, Digital Equipment Corp.
146 Main Street
Maynard, Mass. 01754

Dear Dr. Olsen:

Recently I have been doing some thinking about a data acquisition problem of a form common to libraries, and I have conceived of an acquisition device (using a magnetic tape) which might have application to this and similar problems. As I am not an engineer I would not know where to begin in constructing a prototype device, and when I began to think of who I might talk to about this idea you came to mind immediately. I suppose this is because I am somewhat familiar with DEC and its products (being an ARD and former DEC stockholder) as well as having had the chance to hear you speak at the recent ASA colloquium on computers and the church.

If you would be interested in pursuing what may well be a half-baked idea I would be glad to describe it in writing to you or, if you prefer, in conversation.

Sincerely yours,

Kalon Kelley

Kalon Kelley
Assistant Professor (UCLA)

home address: 31 Winchester Drive
Lexington, Mass. 02173
VO2-7807

June 14, 1968

COPY

Mr. David N. Freedman
Sales Administration Manager
Gilbane Building Company
90 Calverley Street
Providence, Rhode Island 02904

Dear Mr. Freedman:

We want to thank you for showing interest in our future building program; however, I think it is too early for us to get together and talk about it at this time.

We have just now taken on an additional 300,000 square feet in the building we are now occupying, in addition to developing manufacturing facilities in several places outside the country. This should take care of our needs for the immediate future.

Sincerely yours,

Kenneth H. Olsen

KHO:ecc

June 14, 1968

Mr. David N. Freedman
Sales Administration Manager
Gilbane Building Company
90 Calverley Street
Providence, Rhode Island 02904

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Sincerely yours,

Kenneth H. Olsen

KHO:ecc

Gilbane
BUILDING COMPANY
ESTABLISHED 1873 INCORPORATED 1908
90 CALVERLEY ST., PROVIDENCE, RHODE ISLAND 02904

June 7, 1968

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

Dear Mr. Olsen:

May we meet with you during the week of June 10th or 17th to discuss your company's future building program?

The Gilbane Building Company, New England's largest builder, has successfully served the building needs of many of this area's leading corporations. This work has included many projects for companies in the field of electronics.

We look forward to your reply and hope that it will be convenient for you to meet with us sometime during the next two weeks.

Very truly yours,

GILBANE BUILDING COMPANY

David N. Freedman

David N. Freedman
Sales Administration Manager

DNF:az

RETURN REQUESTED

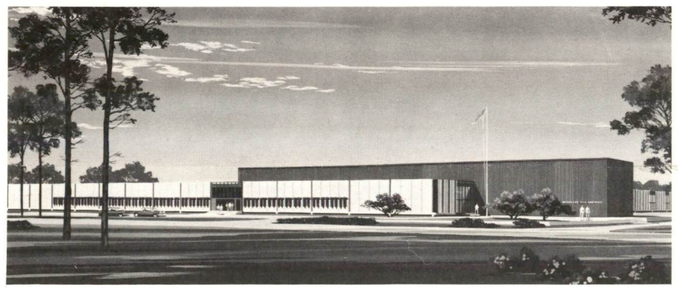
SIDEWALK Gilbane SUPERINTENDENTS
90 Calverley St. Providence, Rhode Island 02908

BULK RATE
U. S. POSTAGE
PAID
Permit No. 267
PROVIDENCE, R. I.

Other Industrial Projects by Gilbane

POLYVINYL CHEMICALS, INC.—Chemical complex-processing, warehousing and research laboratories in Wilmington, Mass., are comprised of three main buildings and an underground tank farm for storage of highly flammable chemicals. The project also included the building of two ponds for cooling water, process water and fire protection. The walls and roof of the Warehouse and Process Buildings are built of precast, post-tensioned concrete members, the longest of which span 120 feet across, making them the longest spans of their class today.

Engineer: The Badger Company, Inc.
Architects: Carl Koch & Associates



NICHOLSON FILE COMPANY — Complete new plant for production of files, situated in an industrial park in North Philadelphia. The total building area is 225,000 square feet and contains complete manufacturing facilities as well as administrative offices, cafeteria and maintenance shops. The exterior walls are a combination of precast concrete panels and fabricated metal and glass panels supported from a structural steel frame.

Architects/Engineers: Day & Zimmermann, Inc.

KENNECOTT COPPER CORPORATION

An addition to the Ledgemont Laboratory in Lexington, Mass., the research and development center for the world's major producer of copper. The addition includes office facilities as well as a laboratory. An interesting building feature of this project is that 420 linear feet of concrete cribbing and over 600 linear feet of fieldstone were used in the construction of walls.

Architects: Anderson, Beckwith and Haible

FOR
SIDEWALK SUPERINTENDENTS

Vol. XVII, Issue 3 | Gilbane Building Company, Providence / New York / Boston | October 1967

NO JOB TOO BIG

Industrial Construction by Gilbane

Down through the years, the Gilbane Building Company has tackled some of the largest industrial construction projects in the eastern half of the U. S.

Like commercial and institutional construction, industrial work offers its own unique problems — primarily due to the massiveness of the project.

Gilbane's part in these projects has included planning, site selection, financing, engineering, construction, equipment installation, fitting up and in some cases, lease-back arrangements.

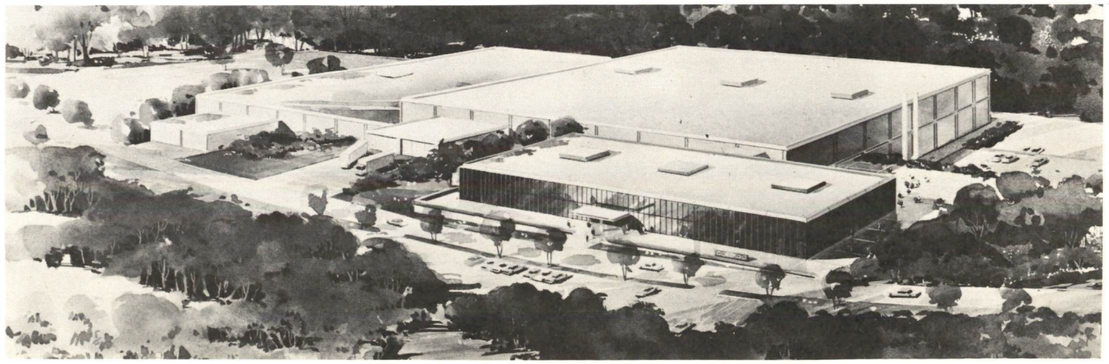
No job has been too big or too small for Gilbane. The company also is proud that it has often completed industrial projects well under tight deadline schedules. As an example, Gilbane took only 11½ months to complete a 2-million square foot, $40-million, fabricating plant for the Fisher Body Division of the General Motors Corp., in Mansfield, Ohio.

Among other industrial construction projects Gilbane is now performing, or has completed, are a research and manufacturing plant for Clairol, Inc. in Stamford, Conn.; a laboratory for Miles Laboratories, Inc. in West Haven, Conn.; a laboratory for Kennecott Copper Corporation, Lexington, Mass.; an office building and manufacturing plant for the Nicholson File Company in Philadelphia, Pa.; and offices, laboratories and manufacturing facilities for IBM in East Fishkill, and Endicott, N. Y., West Concord, Mass., and Lexington, Ky.

Other projects included a $50-million closed-die heavy forging press plant and press foundations for the Wyman-Gordon Company in North Grafton, Mass.

Another of Gilbane's industrial construction projects is described inside.

CLAIROL, INC. — left to right, Henry J. Bowker, Clairol project manager, Frank E. Totonelly, Gilbane project manager, and Garth E. Dimon, Project director for Clairol, discuss plans on the construction of the world's largest facility for the manufacture, production and distribution of hair care and cosmetic products now being completed in Stamford, Conn.



Architects rendering of the Clairol, Inc. Blachley Road Facility in Stamford.

Charles Luckman Assoc., Architect

New GE Transformer Facility

The largest industrial project now under construction by the Gilbane Building Company is the General Electric Company's $27-million Super MVA (Mega-Voltage-Ampere) Facility nearing completion in Pittsfield, Massachusetts.

This new facility will allow the GE Transformer Department to build and test the world's largest transformers.

The main sections of this new facility are the Assembly and Test Building, where the transformers will be built and tested, and the Motor Generator Building, which will supply the enormous electrical power needed to test the transformers.

The transformers to be assembled here will be some of the largest built by any electrical manufacturer and, when fully assembled, will weigh as much as a million pounds or more. The transformers presently being manufactured at Pittsfield range from 25,000 kilowatts to 950,000 kilowatts.

Set in the middle of the present GE complex in Pittsfield, construction of the facility was complicated by the round-the-clock GE operations. Seven buildings had to be razed to make room for the new facility, but as Thomas E. Battles, Gilbane vice-president and project manager, points out, GE's operation was never interrupted.

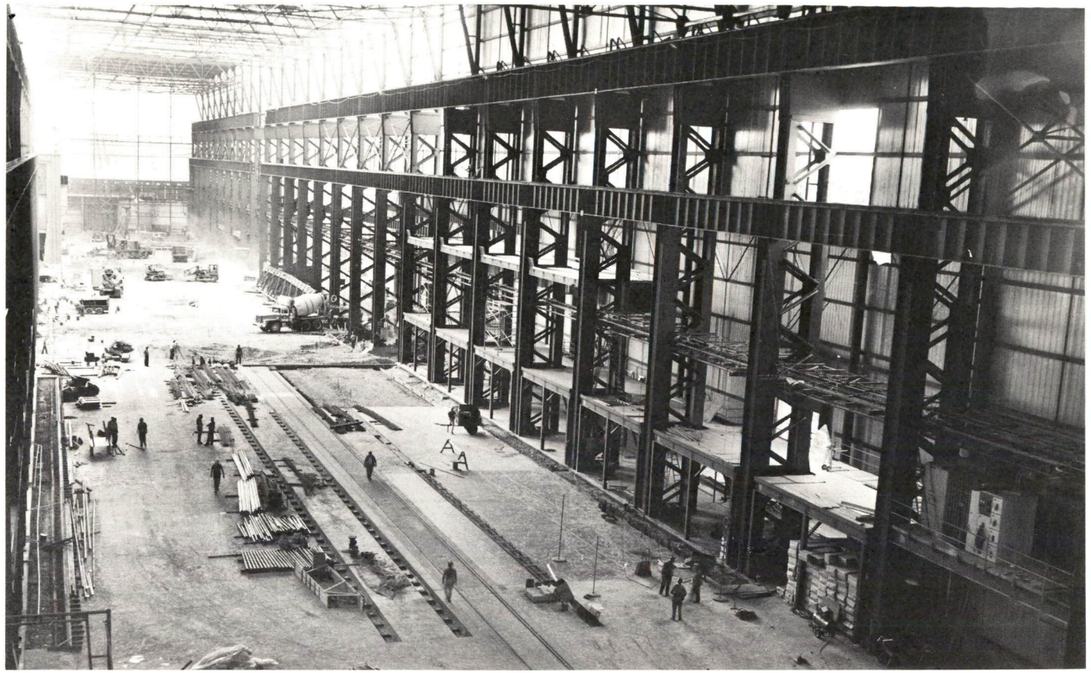
As each building was about to be razed, Gilbane employees worked during nights and weekends to relocate equipment within existing facilities to keep the GE operation continuous.

The Assembly and Test Building, when completed, will provide 205,000 square feet of space. It will be 1,120 feet long, longer than the ocean liner Queen Elizabeth, and will be 112 feet high. It will be supported by 66 steel columns, each 10 feet wide, and each weighing about 37 tons.

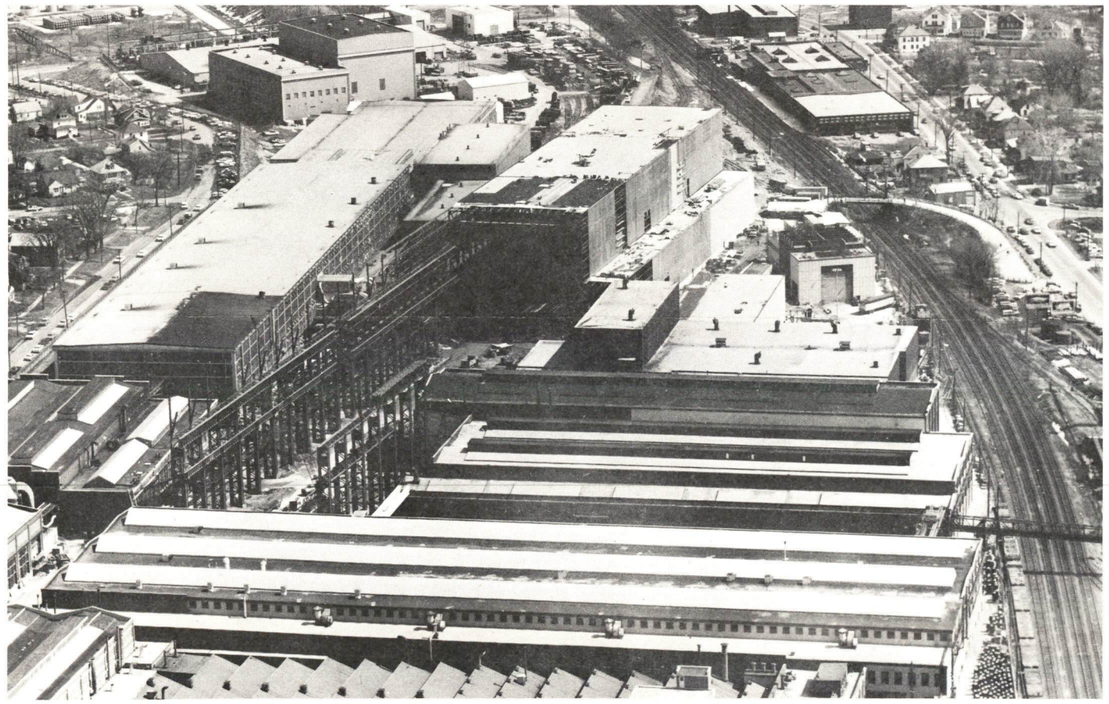
A major part of the project involved the building of service roads within the plant, and railroad facilities to the New York Central line. Also under construction is a new bridge over the New York Central railroad tracks and new connecting highways.

Construction of the facility began in May, 1966. The Motor Generator Building was completed last May and the Assembly and Test Building is expected to be completed by the end of the year.

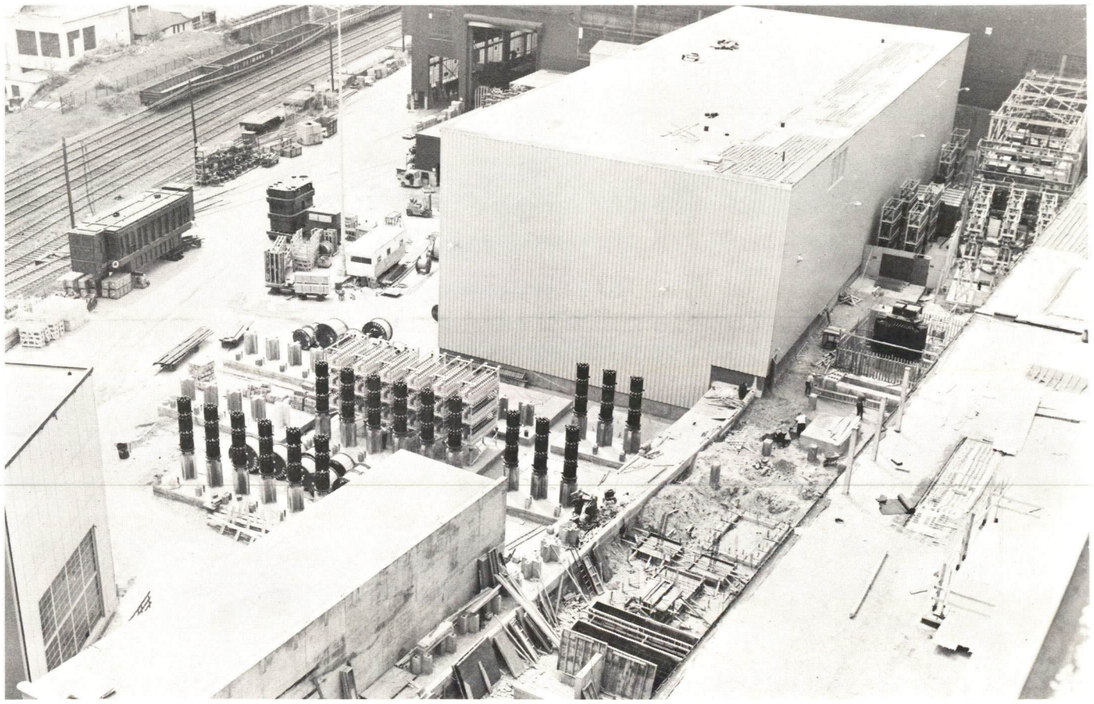
GE expects to ship the first units from the new facility early in 1968.



ASSEMBLY AND TEST BUILDING: One year after start of construction, interior view shows enormous length of building.



ASSEMBLY AND TEST BUILDING: Aerial view shows structural steel columns in the foreground and steel being covered with metal siding and roofing in the background.



VIEW OF MOTOR GENERATOR BUILDING with exterior siding. Capacitor house in foreground and section of lower switch yard also shown. Foundations for transformers in upper switch yard also shown.

Charles T. Main, Engineers

June 14, 1968

COPY

Mr. Donald C. Cook
President
American Electric Power Company, Inc.
2 Broadway
New York, New York 10004

Dear Mr. Cook:

I want to thank you for your invitation to serve as a member of the NCCJ National Special Gifts Committee.

I feel I have to give a negative answer to your invitation because I have already committed myself, both in time and ability, beyond that which I could contribute beneficially.

Very truly yours,

Kenneth H. Olsen

KHO:ecc

June 14, 1968

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Mr. Donald C. Cook
President
American Electric Power Company, Inc.
2 Broadway
New York, New York 10004

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Very truly yours,

Kenneth H. Olsen

KHO:ecc

AMERICAN ELECTRIC POWER *Company, Inc.*

AEP

2 Broadway, New York, N. Y. 10004
422-4800

DONALD C. COOK
President

June 4, 1968

Mr. Kenneth H. Olsen
President
Digital Equipment Corporation
Main Street
Maynard, Massachusetts 01754

Dear Mr. Olsen:

Will you join me in helping a cause which zeroes in on the basic domestic problem which confronts our nation? Since its formation in 1928, the National Conference of Christians and Jews has been effective in creating better understanding and cooperation between segments of our society which are divided by religion, by race, or by ethnic background. Each day's headlines provide sufficient reason why such an organization needs your help and why I am so willing to ask for it.

My request is for you to serve as a member of NCCJ's National Special Gifts Committee, now in the process of formation. As a committeeman you would secure a limited number of corporate or personal gifts to undergird the programs of NCCJ, each aimed at making true Brotherhood a reality across our land. All gifts will be utilized to this end by the NCCJ regional office in your area.

Upon securing your assent to serve on the Committee, I will have the NCCJ regional director get in touch with you to assist in developing a prospect list of about twenty persons or firms from whom gifts will be sought.

Together I believe we can render a significant service to NCCJ and through it to American society. I look forward to hearing from you.

Sincerely,

Donald Cook

National Special Gifts Chairman

June 12, 1968

COPY

Dr. O. B. Baumruk
Hans-Thoma-Platz 40
69 Heidelberg

Dear Dr. Baumruk:

I would like to thank you on behalf of Mr. Olsen for your interest in Digital Equipment Corporation. At the time of the ACHEMA 1967 meeting in Frankfurt/Main, there was a position available that, considering your qualifications and background, could have been mutually attractive.

Unfortunately, at this time, we do not have an assignment that would be of interest. I will forward your letter and resume to Graydon Thayer, Manager of Professional Personnel, for consideration, should such an opportunity arise.

Very truly,

Robert F. Collings
Assistant to the President

RFC:mc

cc: Kenneth Olsen ✓
Graydon Thayer

Elgastat Wasser GmbH

MITGLIED DER ELGA GRUPPE FÜR DEN BEREICH DER EWG

· Elgastat Wasser GmbH · 69 Heidelberg 1 · Jahnstraße 28-30 ·

Mr.
Kenneth H. Olsen, President
c/o DIGITAL EQUIPMENT CORPORATION
146 Main Street
Maynard, Massachusetts 01754
U.S.A.

69 HEIDELBERG 1
JAHNSTRASSE 28-30
TELEFON (06221) 44016
TELEGRAMME:
ELGAMATICS HEIDELBERG
POSTSCHECKONTO:
KARLSRUHE 129621
BANK:
DEUTSCHE BANK AG HEIDELBERG,
KONTO: 01/31763

IHRE NACHRICHT	IHRE ZEICHEN	UNSERE ZEICHEN	TAG
-	-	Dr.Ba/sch	June 7, 1968

Dear Mr. Olsen:

You certainly are remembering the letter of May 13, 1968 from NESINC's International Staff Officer: A.I. GESSNER, Suite LL-100, 1612 K Street N.W., Washington D.C. 20006, regarding our meeting at ACHEMA 1967 in Frankfurt/Main.

I am including my confidential Resmuée which NESINC made after careful investigation of my background, experiences and capabilities.

I am finishing shortly my assignment with the ELGA GROUP and I would be very much interested to join your progressive International Organization.

For more detailled information please contact NESINC's Staff Officer directly.

Looking forward to your news, with my very best regards,

Sincerely,

Dr. Oleg B. Baumruk
Managing Director

P.S.: Please use only my private address:

Dr. O. B. Baumruk
Hans-Thoma-Platz 40, 69 Heidelberg

Encl.: Confidential Resumée

June 11, 1968

Mr. William H. Seaver
Division Manager
Camco
Computer Systems Division
P. O. Box 14484
Houston, Texas 77021

Dear Mr. Seaver:

Your letters dated May 24, 1968 were forwarded to me by Ken Olsen for response.

We have used Motorola, Fairchild and Texas Instruments as sources for transistors, both plastic and metal. Motorola has given us the best performance for availability of a large number of parts and competitive pricing. Fairchild's plastic transistor package has been more troublesome than either Motorola's or Texas Instruments'.

Our experience is that the metal package is superior to plastic, however, plastic is suitable for the majority of our applications.

Mr. Robert Hughes, Extension 235, who is responsible for Component Engineering, would offer additional information, if you wish.

Our European manufacturing plan is developing from Reading, England, where a number of PDP-8I's and PDP-9's will be produced.

The goal is to arrive at a 50% English content as a minimum. We will be able to accomplish the high content level by purchasing the memory stacks, integrated circuits, diodes, power supplies and cabinets from English manufacturers. The machines will be assembled and checked out to increase labor hours in Reading.

The modules will be fabricated in Maynard, but with the integrated circuits and diodes supplied from England. Texas Instruments, our integrated circuit source, has a facility in England and can supply us readily. The semiconductors will be diffused in Dallas, then sent to England as silicon chips for assembly and test.

The power supply and metal cabinets will be considered subcontracted parts. The other items are raw material.

I trust this information will be helpful.

Yours truly,

Henry J. Crouse
Purchasing Manager

cc: Mr. Kenneth H. Olsen ✓

Original to Henry Crouse to answer

7010 ARDMORE • P. O. BOX 14484 • HOUSTON, TEXAS 77021 • RI 7-400

CAMCO
Computer Systems DIVISION

May 24, 1968

Mr. Kenneth Olsen, President
Digital Equipment Corporation
Maynard, Massachusetts 01754

Dear Ken:

As we discussed on the phone this afternoon, we are adding an electronics manufacturing facility to our Belfast, Ireland plant and I am interested in extending our domestic relationship with you to use DEC modules and computers with high content UK manufacture. To get us started and to help me in planning our Belfast operation, I would appreciate a statement of your plans for manufacturing outside London. What type items will you subcontract, what type will you build and what type will you import from the U.S.? What percentage UK manufacture of your computers do you feel is feasible? What type semiconductors do you feel will have to be of U.S. manufacture?

Thanks for your help, Ken.

Warm regards,

CAMCO, COMPUTER SYSTEMS DIVISION

Bill

William H. Seaver
Division Manager

WHS/sw

Original to Henry Crouse to answer

7010 ARDMORE • P. O. BOX 14484 • HOUSTON, TEXAS 77021 • RI 7-400

CAMCO
Computer Systems
DIVISION

May 24, 1968

Mr. Kenneth Olsen, President
Digital Equipment Corporation
Maynard, Massachusetts 01754

Dear Ken:

As we discussed on the phone this afternoon, I am reviewing our entire list of standard semiconductors: diodes, transistors, operational amplifiers, and digital integrated circuits. I am considering a blanket purchase agreement with a large semiconductor manufacturer to act as my principal supplier. Can you tell me of your recent experience with suppliers (particularly Motorola and Texas Instruments) concerning delivery and quality?

We have had some bad experience with plastic encapsulated transistors and wonder whether we should believe TI's reliability claims that their SILECT package is as good as a metal can package. What has been your experience?

Thanks for your help, Ken.

Warm regards,

CAMCO, COMPUTER SYSTEMS DIVISION

Bill

William H. Seaver
Division Manager

WHS/sw

June 10, 1968

COPY

Mr. George Thomas Becker
129 MacDade Boulevard
Collingdale, Pennsylvania 19023

Dear Mr. Becker:

We were pleased to hear of your interest in business applications for PDP-8 computers. We, as a Company, do not have plans to tackle the general business computation problem, but have encouraged a number of companies to offer programs and services using our computers.

One company which has written a business language for the PDP-8 is Sombers Associates, Inc., P. O. Box 93, Lake Hiawatha, New Jersey 07034.

We would like to encourage further development of systems using our PDP-8 computers for business applications. Please send a proposal as to what you would like to do with a borrowed PDP-8/S to Mr. Nick J. Mazzarese, our Vice President responsible for that product line.

Very truly yours,

Kenneth H. Olsen

KHO:ecc

cc: Nick Mazzarese

George Thomas Becker
129 MacDade Boulevard
Collingdale, Penna.
19023
May 13, 1968

President
Digital Equipment Corp.
146 Main Street
Maynard, Massachusetts
01754

Dear Sir:

In an attempt to satisfy my curiousity, I felt I should write to the president. I hope this letter will fall in the hands of someone qualified to answer it.

A group of business programmers, some members of which are experienced on Digital equipment, has been considering the feasability of a small business application of the PDP 8/S. Although apparently intended to be a scientific machine, we feel that the software necessary to fullfill this application could be written without a great deal of trouble.

We realize how conveniently small yet ridiculously powerful the PDP 8/S must be when used, for example, by an aerospace engineer in a series of complex computations to complete a given project. The very same convenience and power, we feel, could be applied to a small accounting or inventory-control department, whose volume is otherwise too small for data processing.

Certainly the price tag lends the system available to the stingiest of purchasing agents.

A rather limited amount of systems research has been done by us toward this goal. We are bound by the lack of a PDP 8/S with which to compile, experiment and test our ideas. We cannot get to the actual program coding stage if we know that the project would go no

further. Therefore, if it is at all possible, we would like to have a PDP 8/S made available to us.

Since this is wholly a part-time effort, we cannot afford the expense of buying a system for our own use.

Of course, I would like to know what you think of the application in general. Hopefully, at a later date you would like to talk in detail about what we have in mind.

I am anxiously awaiting your reply.

Very truly,

George Thomas Becker

George Thomas Becker

GTB/jb

June 10, 1968

COPY

Dr. Alvin F. Gardner
9039 Sligo Creek Parkway
Silver Spring, Maryland 20901

Dear Dr. Gardner:

We were pleased to hear of your friend's interest in computer science. Under separate cover, we mailed you a collection of our literature that we thought might be of interest to him.

Our office in Princeton, New Jersey is just a sales office, so it is not in a position to hire people just for summer employment.

A number of the graduate schools now have courses in computers. Those that come to mind immediately are M.I.T., Carnegie-Mellon, and Stanford.

If there is anything else we can do to encourage your friend, please let us know.

Sincerely yours,

Kenneth H. Olsen

KHO:ecc

June 3, 1968

Secretary
Digital Equipment Corporation
Maynard, Mass., 01754

Dear Sir:

I have a friend who is studying computer science and desires a career in computers. Would you be kind enough to send me your handbooks and publications dealing with the various aspects of computer science so that he can get better perspective of the scientific computer field after graduation.

Is there a possibility that he may be able to work at the Princeton, N.J. branch of your company during the summers of 1969, 1970 and 1971. He plans to obtain the M.S. and Ph.D. degrees in computer science and of course would be interested in a career with Digital computers. He resides in New Jersey but attends the University of Connecticut in Storrs, Conn. during the academic sessions Sept to May.

2

I would appreciate any materials that you can send me on "Careers in Computers" and any summer opportunities prior to graduation plus career opportunities after graduation. What are the better graduate schools for computer sciences?

Thanks kindly for your consideration of this request.

Sincerely yours,

Dr. Alvin F. Gardner

DR. ALVIN F. GARDNER
9039 Sligo Creek Parkway
Silver Spring, Md. 20901

June 10, 1968

COPY

Dickey Dyer
Management Consultants
107 Carter Road
Princeton, New Jersey 08540

Dear Mr. Dyer:

Mr. Olsen has requested I answer your letter of May 25, 1968. In recent years, we have received so many solicitations from Educational Institutions and worthwhile groups, such as the R.E.S.I.S.T.O.R.S. that, in fairness to all concerned, we have established the following policy.

At the beginning of the year, our Operations Committee budgets a specified amount for cash contributions. Then, the Personnel Committee reviews all requests for contributions and allocates the budgeted amount among the solicitors.

I would be pleased to forward your letter and recommendation for scholarship to Mr. Dimitri Dimancesco, to be included with next year's contribution candidates.

Very truly,

Robert F. Collings
Assistant to the President

RFC:mc

cc: Ken Olsen

DICKEY DYER
MANAGEMENT CONSULTANTS
107 CARTER ROAD, R.D. 3-138
PRINCETON, NEW JERSEY 08540
AREA CODE 609 PHONE 896-1745

May 25, 1968

Mr. Kenneth H. Olsen, President
Digital Equipment Corporation
146 Main Street
Maynard, Massachusetts 07154

Dear Mr. Olsen:

The young man whose name is underscored in red pencil on the enclosed phtocopy of article from the Trenton EVENING TIMES is President of the R.E.S.I.S.T.O.R.S., which is the major topic of both of the articles of which photocopies are enclosed. My fourth son, Bradford, 12, is a junior member of the R.E.S.I.S.T.O.R.S. The R.E.S.I.S.T.O.R.S. are guided by Claude A. R. Kagan of Western Electric's Engineering Research Center in Hopewell Township, N. J. (adjoining Princeton, N. J.), Calvin N. Mooers, President of Rockford Research Institute, Inc., in Cambridge, Mass., who developed TRAC, and others of eminence.

Chuck Ehrlich, our subject, graduates from high School on June 19. He is headed for Case Institute (now Case Western Reserve) in Cleveland next fall. He, with his advisors, appears capable of rather quickly developing the system-program described in the article on pages 6-10 of the enclosed issue of MODERN DISTRIBUTION MANAGEMENT, which it is now evident to me is not going to be developed in the fashion proposed in this article. When developed, this system-program is going to sell a lot of PDP-8/Is -- maybe 5000.

Chuck needs to make some money this summer towards his college expenses. Bet[ter] yet, he needs a scholarship of about $2000, so he can devote his entire summer to the project outlined in MODERN DISTRIBUTION MANAGEMENT.

I am herewith soliciting this scholarship from you. You have the power to decide and act forthwith. It will be the best corporate contribution DEC ever made. It will have tax advantages for both DEC and Chuck. Kagan and others from Western Electric, such as Levin Peek and Robert Predhome, will work with Chuck technically. Mooers will provide general counsel. I will relinquish billing time so as to be able to work with him on the system, which he and the technically qualified people will convert into the program with interfaced equipment package. I have arranged with two of my clients located in this area for Chuck to have access all summer to their properties. One is an industrial distributor: Wiley-Hughes Co., Trenton, N. J., Lee A. Wiley, President. The other is an office equipment distributor: A. R. Meeker Co., Springfield, N. J., A. Ross Meeker, Jr., President. Here he will absorb the environment in which the system-program will operate.

Mr. Kenneth H. Olsen May 25, 1968

I am not unknown to your company, having corresponded last year with your Mr. Johnson and having had many discussions with your Mr. Dengle. Chuck is not unknown to your Messrs. Rice, Merrill and Jorgensen, having had correspondence and a number of discussions with them, particularly Mr. Rice. I am a classmate of your Director, John Barnard, though our acquaintanceship is limited.

Your company has shown a lot of imagination. I have confidence that this appeal will take with you. I am undertaking to forego billing income as my investment in this development. I am asking you to invest in turn in a very able young man who is destined to make waves in the computer field.

Sincerely yours,

C. Dickey Dyer III

CDD3d:me
Enclosures: Photocopy, Trenton EVENING TIMES, May 1, 1968
Photocopy, COMPUTERWORLD, May 8, 1968 (circulated May 1, 1968)
MODERN DISTRIBUTION MANAGEMENT, April 29, 1968 (marked copy)
DD cv

June 7, 1968

COPY

Mrs. Anne M. Duclos
119 Parker Street
Maynard, Massachusetts 01754

Dear Mrs. Duclos:

I am pleased to enclose a check for $100, representing Digital Equipment Corporation's 1968 contribution to the Salvation Army in Maynard.

We wish you continued success in your current endeavors.

Sincerely yours,

Kenneth H. Olsen

KHO:ecc

Enclosure

June 7, 1968

COPY

Mrs. Rita S. Williams
Executive Director
Concord Family Service Society
Concord, Massachusetts 01742

Dear Mrs. Williams:

I am very happy to enclose a check for $500, representing Digital Equipment Corporation's 1968 contribution to the Concord Family Services.

We are aware of the many valuable services your agency provides the residents of this area, and we are grateful for the help you have given to Digital employees and members of their families.

You may be interested in knowing that we have also contributed to the Community Agency's Building Fund. We hope that this contribution will speed the day when you will finally be able to settle in permanent and adequate quarters.

Sincerely yours,

Kenneth H. Olsen

KHO:ecc

Enclosures

June 7, 1968

COPY

Miss Abigail Eliot
President
Walden Clinic
The Wright Tavern, Church Green
Concord, Massachusetts

Dear Miss Eliot:

I am pleased to forward with this letter a check for $200, representing Digital Equipment Corporation's 1968 contribution to the Walden Guidance Association, Inc.

We appreciate the very valuable services your association has provided for the residents of this area.

Sincerely yours,

Kenneth H. Olsen

KHO:ecc

Enclosure

June 7, 1968

COPY

Mr. Robert Graham
76 Summer Street
Maynard, Massachusetts 01754

Dear Mr. Graham:

I am pleased to enclose a check for $100, representing Digital Equipment Corporation's 1968 contribution to the Assabet Valley Little League.

I do hope that you have another successful season.

Sincerely yours,

Kenneth H. Olsen

KHO:ecc

Enclosure

June 7, 1968

COPY

Mrs. Nancy Koerner
Executive Secretary
Minuteman Association for Retarded Children
15 1/2 Independence Court
Concord, Massachusetts 01742

Dear Mrs. Koerner:

I am very pleased to forward a check for $200, representing Digital Equipment Corporation's 1968 contribution to the Minuteman Association.

We appreciate the fine services the Association has provided for the residents of this area.

Sincerely yours,

Kenneth H. Olsen

KHO:ecc

Enclosure

June 4, 1968

Mr. Richard R. Bartelme
Assistant to the President
Bailey Meter Company
Wickliffe, Ohio 44092

Dear Mr. Bartelme:

We are pleased to hear of your interest in Digital Equipment Corporation, and we would like to do everything we can to encourage a continued relationship.

I am enclosing copies of our annual reports and several pieces of our product literature. If you would like any additional information, we would be very happy to send it to you.

Very truly yours,

Kenneth H. Olsen

KHO:ecc

Enclosures

digital

May 31, 1968

Dr. Enoch Callaway
Langley-Porter Neurological Institute
University of California Medical School
San Francisco Medical Center
San Francisco, California

Dear Dr. Callaway

Please find enclosed a preliminary version of the PDP-7 DECtape ADVANCED software system, which includes:

1 DECtape containing the software system
1 paper tape bootstrap
1 paper tape copy of PDP-4/7 DECTOG JR.
1 writeup of PDP-4/7 DECTOG JR.
1 DECtape formatted and directory initialized, ready to be utilized as a scratch device
1 set of PDP-9 System manuals which are applicable to PDP-7 usage of the system

To format and initialize additional DECtapes, use PDP-4/7 DECTOG, JR and then the monitor command NEWDIR (N) to initialize the directory to comply with the system.

This system has one major shortcoming in that you cannot compile from and to DECtape in an 8K configuration; however, we are in the process of correcting this inconvenience and will forward the improved version to you as soon as possible.

If any difficulties arise, please contact Bob McInturff, or if you wish, DEC Maynard in the person of Mrs. Evelyn Dow or myself, and we will do our utmost to correct the difficulty.

Sincerely yours,

James J. Murphy, Jr.

James J. Murphy, Jr.
Supervisor PDP-9 Software Development

JJM:gm
Enclosures

STATE OF CALIFORNIA—HEALTH AND WELFARE AGENCY RONALD REAGAN, Governor

DEPARTMENT OF MENTAL HYGIENE
THE LANGLEY PORTER NEUROPSYCHIATRIC INSTITUTE
401 PARNASSUS AVENUE
SAN FRANCISCO, CALIFORNIA 94122

May 20, 1968

PERSONAL

Mr. Ken Olsen
President
Digital Equipment Corporation
Maynard, Massachusetts

Dear Mr. Olsen:

I'm writing directly to you in the hope that you may be able to help me in a situation where your local representatives have failed (in spite of a great deal of hard work and tremendous good will).

We purchased a DECtape unit to go on our PDP-7 in response to advertising claims that this would permit paper-tape-free assembling and compiling with Fortran capabilities (DECSYS-7). As you're probably aware, the DECSYS-7 program was marginal at best and has been discarded by your programming group. We were then promised, however, that the "9" system would be retrofit to the "7" and that we would have this by January of this year.

When this was not forthcoming, we complained to the local DEC office and received a very sympathetic hearing. A number of steps were taken to try to remedy our difficulty, culminating in a meeting with Evelyn Dow. She specifically promised (in front of witnesses) that a DECtape compatible system would be available by May 15th. This system is not available as promised, and from rumors, I doubt if it is going to be available unless some pressure from above is exerted.

The DECtape system was purchased specifically on the strength of the promise of a paper-tape-free assembling and compiling system with Fortran capabilities. We have been promised satisfaction on this point by Maynard but with negative results ever since the arrival of the DECtape system. Our local representatives have worked far above and beyond the call of duty to make good DEC's promise to us. As nearly as I can gather, they have met with continual frustration from the programming group in Maynard. At this point, I feel that the only recourse left me is to appeal to your own personal sense of fair play.

Sincerely,

Enoch Callaway, M.D.
Chief of Research

ec/kl
cc/Mr. Ken Larsen
District Manager, DEC
cc/General Services Administration
Sacramento

May 29, 1968

COPY

Mr. Emmett H. Eaton
Eaton Associates
P. O. Box 609
Greenwich, Connecticut

Dear Mr. Eaton:

I want to thank you for your letter of May 16th and for your interest in helping us with mergers and acquisitions.

We see the plans for DEC laid out quite clearly before us, and, therefore, feel we have to give a negative answer to your inquiry.

Very truly yours,

Kenneth H. Olsen

KHO:ecc

May 29, 1968

Mr. Emmett H. Eaton
Eaton Associates
P. O. Box 609
Greenwich, Connecticut

Dear Mr. Eaton:

I want to thank you for your letter of May 16th and for your interest in helping us with mergers and acquisitions.

We see the plans for DEC laid out quite clearly before us, and, therefore, feel we have to give a negative answer to your inquiry.

Very truly yours,

Kenneth H. Olsen

KHO:ecc

Eaton Associates

~~8 WEST 40th STREET~~
~~NEW YORK, N.Y. 10018~~
Financial Consultants — *Mergers & Acquisitions*
~~PE 6-6580~~
P.O. Box 609
Greenwich, Conn.

May 16, 1968

CONFIDENTIAL

Mr. Kenneth H. Olsen
President
Digital Equipment Corporation
146 Main Street
Maynard, Mass. 01754

Dear Mr. Olsen:

We wish to thank you for forwarding us your 1967 Annual Report.

Your report serves a double purpose with us since, as financial consultants, we specialize in assisting companies in their growth by merger and acquisition. In your plans to expand by adding to and diversifying your product line, we believe we can be helpful to the Digital Equipment Corporation at this time.

For the past 20 years, we have worked with the corporate staff assigned to implement this specialized task. We search for and screen prospects, evaluate plant operations, prepare financial reports, follow up leads for our clients and initiate discussions and acceptable methods of purchase. We do not disclose the client's name until we are so directed.

We work on a monthly retainer basis and in a strictly confidential manner. We would appreciate the chance to chat with you the next time we are in your area to establish our qualifications and references. This would entail no obligation whatever on your part.

We shall look forward to your reply and trust we shall have the opportunity of meeting and discussing this situation.

Sincerely yours,

Emmett H. Eaton

EHE:hl

May 29, 1968

COPY

Mr. Richard R. Hirsch, President
Richard R. Hirsch and Associates, Inc.
3601 West Devon Avenue
Chicago, Illinois 60645

Dear Mr. Hirsch:

I want to thank you for your letter of May 24 concerning mergers and acquisitions.

We see the plans for DEC laid out quite clearly before us, and do not now see the need for making corporate ties. Therefore, we have to give a negative answer to your inquiries.

Very truly yours,

Kenneth H. Olsen

KHO:ecc

May 29, 1968

COPY

Mr. Richard R. Hirsch, President
Richard R. Hirsch and Associates, Inc.
3601 West Devon Avenue
Chicago, Illinois 60645

Dear Mr. Hirsch:

I want to thank you for your letter of May 24 concerning mergers and acquisitions.

We see the plans for DEC laid out quite clearly before us, and do not now see the need for making corporate ties. Therefore, we have to give a negative answer to your inquiries.

Very truly yours,

Kenneth H. Olsen

KHO:ecc

Richard R. Hirsch and Associates, Inc.
CONSULTANTS TO INDUSTRY

3601 West Devon Avenue
Chicago, Illinois 60645
312 / 539-3610

May 24, 1968

Digital Equipment Corp.
Attn: President
Maynard, Mass.

Gentlemen:

We have clients who are looking for acquisitions. They are on the New York and American Stock Exchange, and are interested in purchasing a product that fits with their distribution. The field they are looking for is electronics.

They will purchase outright for stock or cash. The basic requirement is a minimum of 1 million dollars in sales showing a fair profit margin.

If you have a product that fits into the above category kindly let us hear from you. Naturally, all correspondence will be kept in the strictest of confidence.

Sincerely yours,

RICHARD R. HIRSCH & ASSOC., INC.

R. R. Hirsch

Richard R. Hirsch
President

RRH/ms

PS: If you are looking for acquisitions or mergers, possibly we can be of assistance to you.

Public Relations

Elsa

May 28, 1968

Mr. John Butler
107-20 104th Street
Ozone Park 17, New York

Dear Mr. Butler:

This will acknowledge your letter of May 9 to Mr. Kenneth Olsen concerning your proposed public relations agency.

We have carefully evaluated the matter of financial and technical public relations on several occasions and have concluded, for the present, to remain with the plans we are now pursuing.

We wish you great success with your pending venture and are certain that with your background and contacts that it will be a great success.

Very truly yours,

Harry S. Mann
Vice President, Finance

HSM/ml

5/13
Original to Harry to answer.

107-20 104th Street,
Ozone Park 17, N. Y.,

May 9, 1968.

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

Dear Mr. Olsen;

I am preparing to open my own public relations agency in New York specializing in financial and technical consultation, and would be interested in developing a comprehensive public relations program for your company if you do not have an agency already.

I have had heavy experience in financial and edp areas through work with a New York agency, as eastern Director of Public Relations for Litton Industries, and on the corporate public relations staff of General Precision. I have excellent editorial contacts among financial, business, edp and electronics publications.

In developing a public relations program for Digital Equipment, I would put somewhat more emphasis on using public relations as a marketing tool -- without sales and earnings growth, there is no foundation for a meaningful financial program. Through news releases and feature stories, I would alert your markets, actual and potential, to the applications of your products and systems, to new product introductions, and other aspects of corporate activities.

All financial audiences seem to be well aware of Digital Equipment so the financial program would be oriented to implementing current knowledge of the company through corporate background stories, and setting up meetings with security analysts at periodic intervals to bring Digital Equipment's story directly to them.

I shall be very interested in your reaction to this thought, and am prepared to go into greater detail if desired.

Yours very truly,

John Butler

May 27, 1968

COPY

Mr. William R. Sullivan
Attorney at Law
11 Albion Street
Wakefield, Massachusetts 01880

Dear Mr. Sullivan:

I want to thank you for your letter of May 17th concerning the possibility of our Company being acquired by one of your clients.

I feel that we have to give a negative answer to your inquiry. We see the plans for DEC laid out quite clearly before us, and do not now see the need for acquisition.

Very truly yours,

Kenneth H. Olsen

KHO:ecc

WILLIAM R. SULLIVAN
ATTORNEY AT LAW

245-4600
4601

ELEVEN ALBION STREET
WAKEFIELD, MASSACHUSETTS 01880

May 17, 1968

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

Dear Sir:

I have been asked by several companies on the New York and American Stock Exchange to investigate the possible acquisition of firms in oceanography and allied fields.

These companies are interested in acquiring firms in these fields under a tax-free reorganization. If you feel that your company would be interested in exploring this possibility, I would be happy to discuss this matter with you at your convenience.

Please be assured that any communications and discussions would be held in the strictest confidence. Please let me hear from you.

Very truly yours,

William R. Sullivan

WRS:AL

Business address:
Manager, Information Systems Research
General Electric Company
816 State Street
Santa Barbara, California 93102

May 21, 1968

COPY

Dr. Henry P. Kramer
1503 Mission Canyon Road
Santa Barbara, California

Dear Dr. Kramer:

We very much appreciate the confidence you have shown in us by suggesting that we consider cooperating in making commercial use of the ideas you developed. We agree with your enthusiasm for the future of this type device, and we are confident that when a machine like this is available it will solve many of the problems we now have in assembling data.

In spite of our enthusiasm for the future of this idea, I feel we have to give a negative answer to your suggestion. We have been struggling with this question for many weeks, and it is with reluctance that we come to this conclusion. We are just now completing our detailed plans for this next year, and it has become very clear that we must continue to invest the bulk of our resources, which includes money, time, and interest, in those areas closely related to our present fields of activity. We feel it would be wrong to give up part of the market in which we are now one of the dominant factors, in order to go into an area which is close but not one in which we traditionally have strength.

Thank you again for your invitation. If you would like help in arranging for capital, we would be very happy to give suggestions, and we would be more than willing to cooperate with you in giving advice. I'm sorry I didn't have the opportunity to observe your experiments; however, I haven't been able to make it to the West Coast for the last several months.

Sincerely yours,

Kenneth H. Olsen
President

KHO:ecc

bcc: Gene Olson, L. A. office

digital

May 20, 1968

Professor Walter A. Rosenblith
Massachusetts Institute of Technology
Room 20B-221
Cambridge, Massachusetts 02139

Dear Professor Rosenblith:

I am responding to your letter to Mr. Olsen regarding support from Digital Equipment Corporation for the Third International Biophysics Congress. We appreciated your visit to talk with us about the Congress and want to cooperate as fully as we can.

Digital will take exhibit space for the Congress in order to demonstrate equipment of interest to the attendees. We would also be very pleased to arrange tours of our facilities in Maynard during the Congress. However, we feel that we cannot make a cash grant as you proposed in your letter. For financial and tax reasons, we make our substantial gifts and grants in the form of equipment, and our budgets and cash planning are constructed in this way. Thus, we are not in a position to provide direct cash support, but would prefer to support the Congress through the purchase of exhibit space and the arrangement of tours.

Thank you again for personally visiting our plant to discuss the Congress.

Sincerely,

Winston R. Hindle, Jr.
Vice President

WRH/bwf

bcc: (copy of Rosenblith letter attached)
K. Olsen
M. Ruderman
R. Handy
T. Johnson

DIGITAL EQUIPMENT CORPORATION, 146 MAIN STREET, MAYNARD, MASSACHUSETTS 01754
(617)897-8821 TWX: 710-347-0212 TELEX: 94-8457

Original to Win to answer

INTERNATIONAL UNION FOR PURE AND APPLIED BIOPHYSICS

OFFICE OF THE SECRETARY GENERAL:

PROF. A. K. SOLOMON
BIOPHYSICAL LABORATORY
HARVARD MEDICAL SCHOOL
BOSTON 15, MASSACHUSETTS

Room 20B-221
Massachusetts Institute of Technology
Cambridge, Massachusetts 02139
March 6, 1968

Mr. Kenneth Olson
President
Digital Equipment Corporation
Maynard, Massachusetts

Dear Mr. Olson:

Thank you for your cordial reception and for the fine opportunity to discuss the Third International Biophysics Congress. Enclosed is a memorandum containing background information and, in particular, a brief summary of the history of IUPAB, as well as details regarding structure and budget of the 1969 Congress.

As we have attempted to point out, this is the first time that the U.S.A. is host to an International Congress in the area of Biophysics, although this country has played a leading role in that field of science. The United States has also played a key role in organizing international cooperation in Biophysics.

The current budgetary situation in Federal agencies unfortunately makes it difficult to finance the organization of this Congress simply following examples set by other scientific Unions. This situation offers, however, an opportunity for American research oriented industry both at the national level and, more particularly, in the Boston area to express their support for Biophysics in a variety of ways. The presence on the M.I.T. campus of several thousand Biophysicists should give ample opportunity to acknowledge this support publicly and to acquaint the scientists through exhibits or other means with the activities and products of the industry.

We trust the above and the enclosed information provide a sufficient basis for the Digital Equipment Corporation to reach a favorable decision. We hope the corporation will be willing to act as one of the sponsors of the Congress and consider a sum of $5,000 as consonant with its purposes and as appropriate to the occasion. We will follow your wishes with respect to the form of your support.

Please convey our appreciation to Mort Ruderman for the splendid tour. I am sure the participants in the Congress will find it as stimulating as we did.

Thanking you again for your time and consideration, I am,

Sincerely yours,

Walter A. Rosenblith

Walter A. Rosenblith
Chairman
Organizing Committee

WAR:oj

Enc.

INTERNATIONAL UNION FOR PURE AND APPLIED BIOPHYSICS

OFFICE OF THE SECRETARY GENERAL:
PROF. A. K. SOLOMON
BIOPHYSICAL LABORATORY
HARVARD MEDICAL SCHOOL
BOSTON 15, MASSACHUSETTS

HISTORY AND STRUCTURE OF IUPAB

The purposes of the International Union for Pure and Applied Biophysics are:

a) to organize international cooperation in Biophysics and to promote communication between the various branches of Biophysics and allied subjects

b) to encourage within each country cooperation between the societies that represent the interests of Biophysics

c) to contribute to the advancement of Biophysics in all its aspects

The Union is made up of official representatives of twenty-six national bodies. Each adhering body is represented either by its National Academy, Royal Society, or society of Biophysics if the Academy does not participate on an official level.

IUPAB was founded in 1961, on the occasion of the First International Biophysics Congress in Stockholm. It has subsequently held several international meetings, including one in Paris on a moderate scale and a second in Vienna covering the whole field of Biophysics. Several smaller meetings have also been held. The International Union for Pure and Applied Biophysics was the fifteenth union to be admitted to the International Council of Scientific Unions, the parent body for most international organizations in the fundamental sciences.

The major activities of the International Union are entrusted to its Commissions, of which there are four: 1) Commission on Molecular Biophysics; 2) Commission on Cell and Membrane Biophysics; 3) Commission on Biophysics of Communication and Control Processes; 4) Radiation Biophysics Commission. Each of these commissions is responsible for directing the activities of the Union in the commission's field of interest. In addition to these four Special Commissions, there are two Affiliated Commissions, one in the area of medical physics and the other in bio-medical engineering.

The newest activity of IUPAB is Quarterly Reviews of Biophysics, a new journal to be printed by the Cambridge University Press. The first issue is expected to appear early in 1968. This will be an international journal designed to cover the advancing fronts in Biophysics with solicited reviews on the most exciting and timely aspects.

INTERNATIONAL UNION FOR PURE AND APPLIED BIOPHYSICS

OFFICE OF THE SECRETARY GENERAL:

PROF. A. K. SOLOMON
BIOPHYSICAL LABORATORY
HARVARD MEDICAL SCHOOL
BOSTON 15, MASSACHUSETTS

PLANS FOR 1969

The Third International Biophysics Congress is to be held on the M.I.T. campus from August 29 - September 3, 1969. The usual components of a Congress of a Scientific Union are planned, but the mix may be somewhat unusual.

General symposia, intended to present outstanding biophysicists on topics that are both significant and of current interest, will be either single tracked or, at most, double tracked. (See attached chart). A departure from the customary pattern of Congresses is in particular contemplated in the area of contributed papers. Because the Congress is being held at M.I.T. during a vacation period all the lecture rooms will be available for formal or informal meetings. At previous Congresses participants have expressed frustration at having to choose among many simultaneous sessions throughout most of the Congress. By concentrating the contributed papers into a single day immediately after the first general symposium, we hope to allow essentially all biophysicists with common interests to meet early in the Congress and to make it possible for them to get together in subsequent flexibly arrangeable informal meetings.

The bulk of the responsibility for organizing the Congress rests with the Organizing Committee which has been appointed by the National Academy of Science. The members of the Organizing Committee are: Dr. Thomas F. Anderson (The Institute for Cancer Research), Dr. Dean B. Cowie (Carnegie Institution of Washington), Prof. Maurice S. Fox (M.I.T.), Prof. Franklin Hutchinson (Yale University), Dr. Walter Koltun (Bolt, Beranek and Newman), Prof. Robert Langridge (University of Chicago), Prof. J.L. Oncley (University of Michigan), Dr. Richard B. Roberts (Carnegie Institution of Washington), Dr. Robert L. Schoenfeld (Rockefeller University), and Prof. Arthur K. Solomon (Harvard Medical School). Prof. Walter A. Rosenblith of M.I.T. serves as chairman of this committee. The Organizing Committee works closely with the Executive Committee of IUPAB, which is composed of the officers of the Union. Dr. Detlev Bronk, President of Rockefeller University, has agreed to serve as Honorary President of the Congress. The Division of Biology & Agriculture of the National Research Council (Dr. Russell B. Stevens) is handling the submission of proposals to government agencies and is responsible for the overall management of the Congress.

AUGUST 29 FRIDAY	AUGUST 30 SATURDAY	AUGUST 31 SUNDAY	SEPTEMBER 1 MONDAY	SEPTEMBER 2 TUESDAY	SEPTEMBER 3 WEDNESDAY
	General Symposium I Natural History of Macromolecules	Contributed Papers (up to 50 simultaneous sessions if necessary)	General Symposia II & III Protein Structure and Function Artificial Internal Organs and Physiological Support Devices	Commissions on (1) Radiation Biophysics, and on (2) Biophysics of Communication and Control Processes; (3) Committee on Instrumentation	Commission on (1) Cell and Membrane Biophysics; (2) Affiliated Commission on Biomedical Engineering (IEEE); (3) Committee on Education
	Contributed Papers (up to 50 simultaneous sessions if necessary)	General Assembly (Informal Sessions)	Commissions on (1) Radiation Biophysics, on (2) Molecular Biophysics, and on (3) Biophysics of Communication and Control Processes	Commission on (1) Cell and Membrane Biophysics; (2) Affiliated Commission on Medical Physics (IUMP); (3) Committee on Mathematics	General Symposia IV & V Assembly of Large Structures Molecular Basis of the Memory Trace
Opening Ceremonies	← INFORMAL SESSIONS →				

INTERNATIONAL UNION FOR PURE AND APPLIED BIOPHYSICS

OFFICE OF THE SECRETARY GENERAL:

PROF. A. K. SOLOMON
BIOPHYSICAL LABORATORY
HARVARD MEDICAL SCHOOL
BOSTON 15, MASSACHUSETTS

PRELIMINARY BUDGETARY CONSIDERATIONS

The experience of recent international Congresses held in the U.S. has been that they cost somewhat above $100/participant. The Boston Congress is expected to be attended by 2000 to 3000 participants. Our estimated costs (exclusive of social events) run as follows:

Travel grants to participants (invited speakers, chairmen of key sessions, scientists from developing countries, young scientists from outside the U.S.A.)	$135,000
Materials and Services (announcements, abstracts, communications, shipping expenses in connection with exhibits, etc.)	65,000
Professional and Secretarial-clerical services (including indirect costs)	55,000
Organizing Committee (travel expenses for main committee and subcommittees)	20,000
	$275,000

Our income is estimated as follows:

Various Federal Agencies (NIH, NSF, ONR, AEC, AFSR)	$100,000
Industrial and Foundation support	100,000
Support from Professional Societies (Biophysical Society and others)	10,000
Registration Fees*	50,000
Exhibit	15,000
	$275,000

* Registration fee per full participant $35**; students $7; associate participants $20.

** This covers also certain social events.

Enclosure filed in file marked "Letter Enclosures"

May 17, 1968

Mr. H. L. Kurkjian
Technical Director
Systems Science Corporation
1104 Spring Street
Silver Spring, Maryland 20910

Dear Mr. Kurkjian:

Thank you for your recent letter. We were pleased to read about your work with Systems Science Corporation.

We will be very happy to work with you in developing systems that use our computers. I believe we are in a position to be helpful, and I'm sure we have the computers to do almost any job efficiently and inexpensively. We have tried to set up an organization which would give support to our users, but we have been careful to avoid making exclusive ties with any one systems organization. Our business is very much dependent on selling to everyone in the systems business, and I think we enjoy the confidence of all our customers, even though some of them may be in competition with each other.

Please let me know how we can be helpful. Under separate cover, I am sending several pieces of our computer literature.

Sincerely yours,

Kenneth H. Olsen

KHO:ecc

bcc: Dane Dennistoun
Cary Armstrong
Win Hindle

K. H. OLSEN

5/4/68

Win:

Do you have any comments?

Ken

It is always useful to have software companies know of our products, since they are in a good position to recommend computers to their clients.

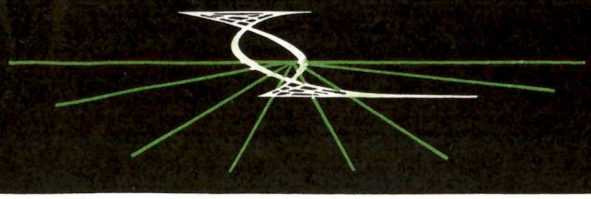
I am <u>not</u> interested in a direct coupling with any <u>one</u> software firm but would like <u>all</u> of them to love us.

I suggest a letter back enclosing literature with an invitation to visit when in Boston.

~~DIGITAL EQUIPMENT CORPORATION~~

Would you like me to answer? If in

BLOOMINGTON, IND. OFFICE:
1616 West Third St. 47401
Phone: 339-3453



Systems Science Corporation
1104 SPRING STREET, SILVER SPRING, MARYLAND 20910
PHONE 589-0100

April 29, 1968

Mr. Kenneth Olsen, President
Digital Equipment Corporation
146 Main Street
Maynard, Massachusetts 01754

Dear Ken:

It has been quite some time since I have had the pleasure of seeing you. The last time I was at Maynard was in 1961, while I was with ITT.

I believe an area of mutual interest may exist between our two corporations. We are a systems engineering and programming organization that is presently doing considerable amounts of work in law enforcement system design and implementation. We have, on several occasions, come across law enforcement applications that suit PDP 6-8 computers. Perhaps, working together we could market total hardware/software packages to meet such market needs.

If such an arrangement would interest you, perhaps you could further explore the details of a joint effort in discussions between yourself and Mr. Robert Shumate, our president. We are presently involved in the design and implementation of five law enforcement systems.

I shall look forward to hearing from you at your earliest convenience. For your information, a company capability profile is enclosed.

Sincerely,

H. L. Kurkjian
Technical Director

Enclosure

May 16, 1968

Mr. Stephen Shellans
Esso Mathematics & Systems, Inc.
P. O. Box 153
Florham Park, New Jersey 07932

Dear Mr. Shellans:

We are pleased to hear that you enjoyed our bit of "Bach" at the Spring Joint Computer Conference.

We are particularly pleased that you thought it came from an organ. The name of the piece was "Little Fugue," and the program was written by some students at the Massachusetts Institute of Technology on one of our PDP-6 computers they have there. At the SJCC, however, it was a tape recording from a program on our PDP-10, successor to the PDP-6.

Sincerely yours,

Kenneth H. Olsen

KHO:ecc

ESSO MATHEMATICS & SYSTEMS INC.

P.O. BOX 153, FLORHAM PARK • NEW JERSEY 07932

OPERATIONS RESEARCH & SYSTEMS DEPT.
OPERATIONS RESEARCH DIVISION
R. H. LARSON . . . . . MANAGER

CABLE: EMSIMAN N. Y.

May 6, 1968

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

Dear Mr. Olsen:

I wanted to drop you a note to say that I enjoyed your company's display at the Spring Joint Computer Conference in Atlantic City last week. The color slides were interesting and informative and well coordinated with the taped talk which accompanied them.

The taped talk was preceded by a few notes of a melody from an organ composition. For the past several days I have been trying to recall the composition from which the music was taken, but I am unable to. Would it be possible to forward this letter to the department or agency who put the display together? I appreciate that this is not a standard request, but I would certainly appreciate it if you could help me obtain some peace of mind on this matter.

Very truly yours,

Stephen Shellans

S. SHELLANS

SS:ejh

"Little Fugue"
by Bach

May 14, 1968

Mr. Milan G. Weber, President
The Milan G. Weber Associates
P. O. Box 81
Deerfield, Illinois 60015

Dear Mr. Weber:

I want to thank you for your letter of May 10 concerning your clients' interest to merge with our Company. However, I feel that we have to give a negative answer to your inquiry. We see the plans for DEC laid out quite clearly before us, and do not now see the need for making corporate ties.

Very truly yours,

Kenneth H. Olsen

KHO:ecc

The Milan G. Weber Associates

MANAGEMENT CONSULTING

P.O. Box 81 • Deerfield, Illinois 60015 • Area Code 312/945-3673

10 May 1968

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

Dear Mr. Olsen:

Noting that your Company is one of the leading prime contractors for Department of Defense Research and Development work, we are wondering if you would wish to expand this part of your activities by the acquisition of one or two small, but exceptionally able and competent, companies in the aerospace field. If so, one of the two companies, described briefly below, might be of interest to you, or one of your Divisions:

a) A very profitable, Dayton-area Company, with exceptional competence in research, development, and fabrication of mechanical and electro-mechanical devices for the aerospace industry. Examples: Design and fabrication of dynamically similar (flutter) models for aircraft and missiles; single axis gyropilot for aircraft, dynamic balancing machines, etc. Sales, about $670,000. Net Profit after taxes, about $100,000.

b) A very small, but extremely capable precision machining Company in the Milwaukee area which has not had an unprofitable year in the last 12 years and has grown every year since 1960. Very profitable. Volume, about $300,000. Its customers are people like Boeing, LTV, Fairchild, etc. It is making certain small, but extremely finely machined critical parts for the Boeing 727, 737, and 747.

If you feel that either or both of these Companies might be of interest to you or one of your Divisions, we would appreciate hearing from you at an early date. (Our fee is paid by the sellers in these instances.)

Yours very truly,

Milan G. Weber
President

MGW/de

E/sa

digital

May 14, 1968

Mr. Milton G. Thomas
Manager - Administrative Services
Wyle Systems
Wyle Laboratories
128 Maryland Street
El Segundo, California 90245

Dear Mr. Thomas:

Your letter to Mr. Kenneth Olsen, President of Digital Equipment Corporation, dated April 25, 1968, has been referred to my office for reply.

I have investigated the allegations made by you in the aforesaid letter and have been informed by our technical engineers and Technical Writing staff that the information which you used from Chapter 13 of our PDP-9 Handbook was correct as of the time this system was first manufactured and the handbook published. Since the aforesaid date, we found out that the one microsecond figure was not correct, and accordingly have made certain changes in our hardware.

Because a problem such as this is always a possibility, Digital Equipment Corporation, and in fact, most computer manufacturers today, include with their publications a statement as is contained in the inside page of the PDP-9 Users Handbook. This statement in effect is intended to cover just the situation which you mention.

We are most sorry that the course of events which you indicated have transpired, but it is our policy in such situations not to give adjustments therefor.

If there is any further assistance which I can be to you, please feel free to contact me.

Very truly yours,

DIGITAL EQUIPMENT CORPORATION

Edward A. Schwartz
General Counsel

EAS:o

DIGITAL EQUIPMENT CORPORATION, 146 MAIN STREET, MAYNARD, MASSACHUSETTS 01754
(617)897-8821 TWX: 710-347-0212 TELEX: 94-8457

Original to John Jones 4/29
how handle?

John said, "nothing doing."

WYLE LABORATORIES

25 April 1968

Digital Equipment Corporation
146 Main Street
Maynard, Massachusetts 01754

Attention: Mr. Kenneth Olsen, President

Subject: Wyle Purchase Order 76616, Item A

Gentlemen:

We have recently received two (2) of your PDP-9 Computers for incorporation into separate instrumentation systems undergoing final assembly at this facility. A Digital Analyzer and Recorder System, using one of these computers, is currently being checked out for delivery to the Pacific Missile Range.

At the time we prepared our engineering design of the interface between the PDP-9 Computer and the system peripheral equipment, the only complete information we had available to us was your PDP-9 User Handbook, as amended January 1968. The peripheral gear being interfaced to the PDP-9 consists of:

Time Data Digital Spectrum Analyzer
Adage Multiplexer and Analog/Digital Converter
Teletype High-Speed Paper Tape Punch
Astrodata Time Code Translator and Tape Search Unit

Wyle used information from your handbook, reference Chapter 13, Figures 13-2 and 13-3 (IOT Timing Diagram and IOT Pulse Wave Form) to design our interface configuration. Your handbook data states that the IOP-4 wave form would be generated with a one-microsecond duration. We were not aware that the User's Manual did not accurately reflect your logic specifications, until we attempted to check out our interface with the above listed equipment. When we ran into difficulty and traced the problem, we learned that IOP-4 does, in fact, have a 0.5 microsecond wave form duration, which significantly impacts our interface design.

TESTING DIVISION · EL SEGUNDO FACILITY
128 Maryland Street, El Segundo, California 90245
EAstgate 2-1763 ORegon 8-4251 Area Code 213
TWX 910-348-6699 Cable WYLAB

We have determined that a minimum of $1,650.00 will be expended by Wyle in correcting this design error, not counting the many hours expended in "trouble-shooting" the problem.

As a result of the problem described herein, we request an adjustment in the price of the remainder of the equipment being purchased on the subject order in the amount of $1,650.00.

Should you have any questions or desire any additional information, please contact the undersigned.

Sincerely,

WYLE LABORATORIES

Milton G. Thomas

Milton G. Thomas
Manager - Administrative Services
Wyle Systems

MGT/br

DIGITAL EQUIPMENT CORPORATION

MAYNARD, MASSACHUSETTS

KENNETH H. OLSEN
PRESIDENT

May 10, 1968

Commander
Naval Oceanographic Office
Code 1730
Washington, D. C. 20390

Reference: Request Number N62306-68-R-0118

Dear Sir:

Digital Equipment Corporation is pleased to support E G & G, Inc., in the submittal of their proposal for Ships Hydrographic Data Acquisition Systems. We already have about 100 computers in oceanographic use, and about 60 on board ships. We are attempting to increase our service to this scientific discipline, and it is our intent to make Digital Equipment Corporation a leading supplier of digital computers to the oceanographic community. You may be assured, then, that the full resources of Digital will be committed to the proposed program in the event of contract award.

Several years ago, Digital introduced the first inexpensive, high-speed digital computer for scientific use. We offered our first computers without software, but today the situation is dramatically changed. We now have a team of 75 programmers keeping up our software, and each of our computers has extensive system programs, which permits a user to quickly adapt the hardware to his unique demands. Today Digital has one of the largest and most competent field service groups in the industry, with over 350 people in the field. They are stationed around the world, so we are able to service our systems almost anyplace, anytime.

Very truly yours,

Kenneth H. Olsen

KHO:ecc

digital INTEROFFICE MEMORANDUM

DATE: May 3, 1968

SUBJECT: EG&G

TO: Ken Olsen FROM: J. A. Jones

Here is a draft for the letter that EG&G has asked us to write to NAVOCEO. When it's ready to go, if you'd like another review, Joel Pratt or Bob McInnis will be glad to go over it.

This letter should be forwarded to Mr. Claude Brenner at EG&G, Bedford for enclosure with their proposal. It's needed by Wednesday morning, May 8, 1968. Our salesman, Les Silvern, will be happy to hand-carry it for you.

John

oh

Reference: N62306-68-R-0118

Mrs. Mary Gerard
Contract Specialist
Naval Oceanographic Office
Code 1730
Washington, D. C. 20390

Dear Mrs. Gerard:

It is my understanding that Edgerton, Germeshausen, and Grier are responding to your request for ~~proposal with~~ a proposal that includes Digital Equipment Corporation computers. This, of course, pleased us very much. We already have about 100 computers ~~installed for shipboard or~~ in oceanographic use, ~~and~~ we are attempting ~~in many ways~~ to increase our service to this scientific discipline, and it is our intent to make Digital Equipment Corporation a leading supplier of digital computers to the oceanographic community.

Bob O'Hagan

and about 60 on board ship.

Several years ago, Digital introduced the first inexpensive, high-speed digital computer for scientific use. We offered our first computers without ~~In the past years Digital was known as a leading supplier~~ of hardware, but provided only a small number of programs. Today the situation ~~has changed~~ is dramatically changed. We now have a team of 75 programmers keeping up our software, and ~~drastically~~. Each of our computers ~~offer~~ has extensive system programs, which permits a user to quickly adapt the hardware to his unique demands. Field service has also been of concern in the past with small computer companies. Today Digital has one of the largest and most competent field service groups in the industry, with over 350

J. Shields

people in the field. They are stationed around the world, and we are able to service our systems almost any place, any time.

We hope your evaluation of the many systems is fruitful. If Digital Equipment Corporation can help you in any way, please don't hesitate to contact me.

Very truly yours,

Kenneth H. Olsen

May 9, 1963

Mr. Kenneth J. Schlager
Vice President
Systems Division
Badger Meter Mfg. Company
4545 West Brown Deer Road
Milwaukee, Wisconsin 53223

Dear Mr. Schlager:

I have appreciated the chance to talk with you by telephone during the past several weeks about present and future cooperation between Badger Meter and Digital. We are most enthusiastic about this relationship and I hope that we can meet soon either in Milwaukee or Maynard to discuss it further.

In a letter to Mr. Olsen a few weeks ago you asked about Digital's plans with regard to direct leasing to end users. We have no current plans to do direct leasing. This policy is one which we regularly evaluate, however, and it is possible that competitive pressure could in the future force us to offer direct leases.

You also asked whether Digital planned to develop and support business-oriented software for PDP-10. The question of what further general software to offer with PDP-10 is now being studied and it is possible that we will decide to offer COBOL. However, we do not presently plan to offer any applications oriented business software, nor do we plan to market to end users desiring a total management information system. Thus, we have no plans underway to compete directly in the market you have described as Badger's primary interest.

Because the matter of leasing caused a brief misunderstanding, let me make Digital's position clear on this point. We do not intend that Digital's quantity discount agreement be used by organizations whose sole function is providing a lease to end users. Since Badger will provide systems design, integration, and support to end users, with leasing as an added feature, the quantity discount agreement is certainly appropriate in the relationship between Badger and Digital.

We are delighted by the enthusiasm and interest that you and your staff have generated in DEC products, and we look forward to an increased amount of activity and cooperation between our organizations.

Sincerely,

Winston R. Hindle, Jr.
Vice President, Group Manager

WRH/bwf

bcc (with copy of K. Schlager's letter)

K. Olsen
H. Mann
T. Johnson
T. Quinn
R. Savell
D. Cotton
W. MacKenzie

BADGER METER MFG. COMPANY
4545 WEST BROWN DEER ROAD, MILWAUKEE, WISCONSIN 53223

April 11, 1968

Mr. Kenneth Olsen
President
Digital Equipment Corporation
Maynard, Massachusetts

Dear Mr. Olsen:

You are probably aware that Badger Meter has become in the last year, a significant Digital Equipment Corporation customer for PDP-8 and PDP-9 computers which are used in Badger's Supervisory Control and Data Communications Systems. Recently in connection with our data communications systems activities, we sensed an opportunity to develop and install complete time sharing systems using the PDP-10 and Badger's terminals. For this reason, after some discussion with Bob Lane of your PDP-10 staff, I requested Jerry Mader, in our Systems Division, to send out a letter to all of your sales representatives and Mr. Ted Johnson and Mr. Ronald Wilson explaining our offer to lease PDP-9s and PDP-10s. I am attaching a copy of this letter for your information. The response to this letter has been quite favorable within the last week.

We here at Badger also feel that a time sharing system within a manufacturing firm, particularly a firm moving toward a total management information system, would be a profitable concept. We plan to prove this concept by purchasing a PDP-10 system and installing it here at Badger and converting the present IBM360/30 programs to a PDP-10 system. To implement this, certain software, not now offered by Digital Equipment Corporation, will be supported by Badger. Such software would include COBOL, a report program generator, a sort-merge package and manufacturing control applications programs such as sales forecasting, inventory control, etc. It is our opinion that such an application could significantly expand the market for the PDP-10 which would be of great benefit to both Digital Equipment Corporation and Badger Meter considering our role as lessor of such systems. Badger is also interested in leasing PDP-10s (and PDP-9s) in other applications, but I believe it has a particular contribution to make in the business area including business-oriented time sharing utilities.

Because of our extensive efforts in connection with PDP-10s it is important that we have an understanding with your company relative to its possible future course of action. It has been my understanding that Digital Equipment Corporation has not, and does not, intend, in the future, to lease its equipment to any end user. It is also my understanding that Digital Equipment Corporation does not plan to develop or support business-oriented soft-

ware. It is Badger's hope that these present policies will continue since a change could have an adverse effect on our leasing and supporting PDP-10 systems. I would appreciate it if you would drop me a letter explaining your present and intended future policies in this regard. If you feel it necessary to discuss these questions in a meeting, I shall be happy to arrange a trip to Maynard in the near future.

Sincerely yours,

BADGER METER MFG. COMPANY

Kenneth J. Schlager
Vice President,
Systems Division

KJS:sk
Enc.
cc: T. Quinn
G. Mader
J. Downs

digital

May 8, 1968

Mr. Harold McGowen, President
CAMCO, Incorporated
7010 Ardmore Street
Houston, Texas

Dear Mr. McGowen:

I hope this will clarify our position in relation to the services and products that we propose to provide CAMCO.

CAMCO, Incorporated will have access to DEC 288 and 144 pin connectors at catalog prices, less any applicable discounts, as long as they are available from our vendors. These connectors are DEC designs with patented features, and can be made by other firms only after properly licensed by Digital Equipment Corporation.

The FLIP CHIP™ board design may be used by CAMCO to support product designs done by CAMCO using standard M & K series modules manufactured by DEC. The handle design used by DEC is trademarked, and can be used for special modules required by CAMCO to complete overall design of a given system. The handles may be purchased from DEC at a price of 15¢ each in quantities of 100 or over in any standard color.

CAMCO, Incorporated will further have the right to remove the DEC logo from any computer purchased from Digital, and to use their own logo or front panel where they choose.

DEC will make available to CAMCO the mylars and information required to lay out their own special circuits and printed circuit wiring. DEC will process such layouts (in sufficient quantity) through the plant here in Maynard, Massachusetts, on a schedule designed to support CAMCO's manufacturing efforts.

DIGITAL EQUIPMENT CORPORATION, 146 MAIN STREET, MAYNARD, MASSACHUSETTS 01754
(617)897-8821 TWX: 710-347-0212 TELEX: 94-8457

Finally, DEC's manufacturing plans include the duplication of most essential steps in our manufacturing process in the United Kingdom, and DEC would be in a position to help CAMCO serve the European market as well as the domestic one.

Very truly yours,

Stanley C. Olsen
Vice-President

SCO:llp

cc: Kenneth H. Olsen ✓
Frederick Gould

May 8, 1968

Mr. Arthur G. Zuch
President
Optimized Devices, Inc.
Pleasantville, New York 10570

Dear Mr. Zuch:

I'm sorry you have been unable to reach me by telephone. I passed your literature around to several of our people. They felt this was fascinating, and there might be use for it in the small computer product line; however, they felt the price was high for the storage capability, and several of the simple, inexpensive tape units are probably competition for it.

Thank you for letting us know about this.

Sincerely yours,

Kenneth H. Olsen

KHO:ecc

OPTIMIZED DEVICES, INC.

914-769-6100
TWX 914-769-7212
PLEASANTVILLE, NEW YORK 10570
Automatic Test Equipment
Data Logging Systems

Mr. Ken Olsen
Digital Equipment Corp.
146 Main Street
Maynard, Mass. 01754

April 24, 1968

Dear Mr. Olsen:

We have developed a unique peripheral capability in the form of a replaceable 7" magnetic disk. This disk system features moderate on line storage (4096 words), unlimited off line storage, exceptional ease of use and low cost.

The disks are nickel-cobalt plated aluminum and handle as easily as 45 rpm records. They are currently in use programming our automatic test systems.

We propose to reorganize the disks to permit compatability with your line of computers. We would expect the replaceable disk computer to find use in test system programming, process control, and similar applications. The disk may also be used as scratch-pad memory with permanent store capability.

Costs with memory address and memory data registers are estimated at $7000 in small quantity and $5000 in production. Disks are $90 each (both sides useable).

Preliminary Specifications

Total Word Capacity/Side	4096
Bits per Word	12 - 16
Number of Tracks	16
Words per Track	256
Average Access Time	25 ms
Disk Speed	1,200 rpm
Disk Drive	60 cycle hysteresis synchronous mtr.
External Transfer	Serial or parallel from registers
Mechanical Dimensions	10 1/2" high, 19" wide, 18" deep

I hope to contact you shortly to determine your interest.

Very truly yours,

Arthur G. Zuch
President

AGZ:bf


OPTIMIZED
DEVICES
INC.
MODEL
5000
PROGRAM:
DATE:
NO.:

digital INTEROFFICE MEMORANDUM

DATE: April 25, 1968

SUBJECT: OPTIMIZED DEVICES' MAGNETIC DISK

TO: Nick Mazzarese, Win Hindle, Stan Olsen, John Jones, Mike Ford, Bob Savell, Bob McInnis, Dave Cotton, George Rice, Steve Lambert

FROM: Ken Olsen

Should we encourage this? I believe it has fixed heads (I have a picture of the model). It reads only the surface on the bottom of the disk, and so the disk is dropped on top of a spindle and the head. This is so close to what we're making now that, if desirable, a trivial variation can be made of our small disc with only one block of heads.

Ken

ecc

I'd prefer DECtape.

J. A. Jones

OPTIMIZED DEVICES, INC.

914-769-6100
TWX 914-769-7212
PLEASANTVILLE, NEW YORK 10570
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Very truly yours,

Arthur G. Zuch
President

AGZ:bf

digital INTEROFFICE MEMORANDUM

DATE: April 25, 1968

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TO: Nick Mazzarese, Win Hindle, Stan Olsen, John Jones, Mike Ford, Bob Savell, Bob McInnis, Dave Cotton, George Rice, Steve Lambert

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Ken

ecc

digital INTEROFFICE MEMORANDUM

DATE: April 29, 1968

SUBJECT: Optimized Devices' Magnetic Disk

TO: Ken Olsen

FROM: Bob Savell

It sounds as if the only encouragement we should give is to find out anything we can about it to see if it has some ideas we could use. The price that Mr. Zuch is quoting is way too high relative to the cost of our own disc, so I see no advantage in buying from Optimized Devices.

cms

May 7, 1968

Mr. James N. Farley, President
Speedfam Corporation
3620 Oakton Street
Skokie, Illinois 60076

Dear Mr. Farley:

I enjoyed talking with you at the Tool Show in Philadelphia. We are not now planning to make magnetic disks, but are making out our capital budgets for next year and I would like to know how much money you think we should earmark in case we have to go into it quickly.

After our conversation, my guess is that the approximate major items would be a Bryant-Simmons lathe and one of your finishing machines. I will get the price of the lathe from our office near London, and I would appreciate it if you could give me an estimate of what your machine would cost for finishing 16-inch disks. I don't want to do any engineering now, but if you would just give me some rough figures, it would give us an idea of what we should put aside.

If you have suggestions as to sources of material for the disk, I would appreciate hearing that also.

Sincerely yours,

Kenneth H. Olsen

KHO:ecc

bcc: Steve Lambert
Joe St. Amour

May 3, 1968

Mr. Maurice B. Mitchell
Office of the Chancellor
University of Denver
Colorado Seminary
Denver, Colorado 80210

Dear Mr. Mitchell:

I was pleased to receive your letter expressing appreciation for our gift to the University last year. We agree completely with your enthusiasm for supporting higher education, and we have, for a number of years, made gifts to universities that were quite extensive for the size of our Company.

Our business is carried on across the whole country, and we therefore feel we have to spread our giving over a very wide area. Because of this, we, in general, limit our gifts to one-time gifts in order to get as broad a coverage as possible. Consequently, we feel we have to give a negative reply to your request for a continuing gift this year.

Sincerely yours,

Kenneth H. Olsen

KHO:ecc

UNIVERSITY OF DENVER
COLORADO SEMINARY
DENVER, COLORADO 80210

OFFICE OF THE CHANCELLOR

April 29, 1968

Mr. Kenneth H. Olsen, President
Digital Equipment Corp.
146 Main Street
Maynard, Massachusetts 01754

Dear Mr. Olsen:

Last year your company generously supported the University of Denver in the amount of $27,000. I am writing to request that you consider a contribution to this University for our 1968 fiscal year. Indeed, we would hope that your contribution this year could be at an increased level over that given last year. We deplore rising costs as much as anyone, but it is an inescapable fact of life at this University as it is throughout our economy.

I came to the University of Denver just a few months ago from a lifetime in business - most recently as President of the Encyclopaedia Britannica Inc. in Chicago. Thus I'm familiar with the increasing demands that are made on the business sector in behalf of many worthy causes. It isn't easy to make the judgments one has to make, in the face of the choices available. But then as now, I incline to the belief that the highest level of support business can provide - in its own best interest - is that which it allocates to the development of strong private institutions of higher learning. We are proud of the fact that the University of Denver is increasingly recognized at national levels in many

areas of academic research. As the only private and fully independent University in the thirteen-state Rocky Mountain region, it performs an unusual service in setting high standards and preserving a free enterprise approach to higher learning.

I'll confess that I am seeing corporate contributions to education through different eyes these days! I have always known that in the businesses which were my responsibility, contributions to higher education were important and useful, but only during these last six months as Chancellor of this University have I had the opportunity to see their real impact from the other side of the fence. The corporate sector is literally the last major source of support for independent universities that want to stay off the tax rolls.

Private industry can well be proud of this role. The very independence you cherish is reborn in each graduating class at our private universities, and this alone justifies your continued support. I hope you will consider this - and the many other important aspects of university support, as you consider this respectful request for continued and increased support.

Sincerely,

Maurice B. Mitchell

vl

May 1, 1968

Mr. J. Robert Harman, Jr.
Vice President
Booz, Allen & Hamilton, Inc.
245 Park Avenue
New York, New York 10017

Dear Mr. Harman:

I regret that I must decline your invitation to attend the presentation on "New Approaches to Top Management Decision-Making" on May 16th. However, I plan to be in Washington, D. C. that week.

Very truly yours,

Kenneth H. Olsen

KHO:ecc

BOOZ · ALLEN & HAMILTON Inc.
Management Consultants

NEW YORK WASHINGTON CLEVELAND DETROIT
CHICAGO DALLAS LOS ANGELES SAN FRANCISCO
TORONTO LONDON DÜSSELDORF

245 PARK AVENUE
NEW YORK · 10017
697-1900
AREA CODE 212

J. ROBERT HARMAN, JR.
VICE PRESIDENT

April 25, 1968

Mr. Kenneth H. Olson
President
Digital Equipment Corp.
Main Street
Maynard, Massachusetts 1754

Dear Mr. Olson:

From time to time we invite top management executives to be our guests at presentations of important new developments in business management. On Thursday, May 16th, we will be presenting in Boston the topic "New Approaches to Top Management Decision Making". I hope you can join us then.

The presentation summarizes findings from studies aimed at increasing the effectiveness with which top management makes its most important decisions. These studies have included the application of operations research techniques and computer technology to top management problems. The presentation shows how these techniques are now being successfully used by non-technical, general management executives. We believe it is among the most significant new thinking in recent years on the subject of executive decision making.

The presentation will begin at 11:30 a.m. at the Harvard Club of Boston, 374 Commonwealth Avenue, and will be followed by lunch. We will wind up no later than 2:00 p.m.

I would appreciate your letting me know whether you will be able to attend, and I look forward to meeting you on May 16th.

Sincerely,

Robert Harman

JRH:bh

We talked with Mr. Stevenson on 5/7/68 and told him we were not interested.
lcc

Enclosure filed in file marked "Letter Enclosures"

Quantum Science Corporation

A SUBSIDIARY OF
SAMSON ASSOCIATES, INC.
NEW YORK AND PALO ALTO

245 PARK AVENUE
NEW YORK, N.Y. 10017
212 • 986-4410

April 30, 1968

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

Dear Mr. Olsen:

Following up on our recent announcement that we initiated our analysis of the Future Structure of the Information Utility Industry on a multi-client basis, I am enclosing a copy of the detailed outline of the report as it will be delivered to the participating clients in July. This outline is contained on pages 4 to 7 in the revised proposal, dated April 30, 1968, a copy of which is enclosed.

We expect that the ultimate cost of the analysis to each sponsoring client will range between $9,000 and $10,000, and we hope that you will elect to participate in this program, since it will provide a blueprint for participation in these dynamic portions of the computer and information industries.

We urge your early decision in this matter since the earlier we receive your authorization, the better we can incorporate your specific interests in the course of the analysis.

I shall be in touch with you sometime during the next few days to discuss the outline of the report in more detail with you.

Sincerely yours,

QUANTUM SCIENCE CORPORATION

Mirek J. Stevenson
President

MJS:kas
Enclosure: Future Structure of the Information Utility Industry Proposal
April 30, 1968 Revision

April 29, 1968

Mr. Ronald V. Thurman
Assistant Editor
Utah Law Review
University of Utah
Salt Lake City, Utah 84112

Dear Mr. Thurman:

I was very pleased to hear the pleasant things you had to say about Digital's strong software support. We work hard to give this support, and appreciate it when we hear someone has noticed it.

I have two reactions to give you concerning the antitrust implications contained in the article you sent.

First of all, I think this industry is much too young for anyone to have the wisdom to know how the industry should be ordered, and, therefore, it would be wrong to arrange laws or decrees to accomplish a prescribed order.

Secondly, I feel that preventing the hardware manufacturer from supplying software would affect the development of software in the industry, and the applications (but definitely not all). The computers would not be initially sold, and would never "catch on" without software delivered with the hardware. After a computer has caught on, many people can figure out how they could have done the software better, but it is unlikely that they would have invested in a developed piece of hardware that had no guarantee of success.

I would have serious concern of the effectiveness of patenting programs. It is very difficult for anyone other than the one who wrote the program to know what is inside it, so it would be exceedingly difficult to enforce patents.

Very truly yours,

Kenneth H. Olsen
President

KHO:ecc

Patent protection for computer programs is both feasible and necessary. But it is not enough. A principal goal of protection is to give all firms active in the industry an incentive to attempt to supply to computer users (1) application programs suited to their true needs, and (2) efficient and inexpensive system programs. For the reasons described above, neither of these goals can be realized without patent protection. However, while such protection alone will stimulate competition in writing application programs, there is an additional prerequisite to real competition in the system programs area.

Under current trade practices it is impossible to sell system programs because almost all of the hardware firms are "giving them away."[57] The price of the system software is included in the price of the hardware itself; the buyer is then "given" the software "without extra charge." Whether the "free" software meets his special needs or not is not taken into account; moreover, since the manufacturer is effectively tying his system software to his hardware, he has significantly less incentive to develop efficient system software than he would have in the absence of tying.

The manufacturer ties because otherwise he would compete not only with other manufacturers (on his complete computer, i.e., hardware plus system software), but also with the software houses on his system software. With tying there can be no effective competition from the software houses. The latter firms are at a disabling disadvantage. Even if they developed system software more efficient for a given user's purpose,[58] the efficiency difference would have to be so great that the user would be willing to pay twice for system software—initially for the manufacturer's inferior product (which he would never use), and again for the software house's superior programs.

Hence, tying greatly reduces the number of computer users willing to go to a software firm for special adaptations. It thus drives these firms to seek other outlets for their skills; often they aid the hardware manufacturers in the development of the general purpose software which not all of its purchasers want.[59] This arrangement kills potential competition between the software firms and the hardware firms for the development of these basic programs. That the potential competition is real is obvious simply from the

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57. "We haven't figured out a way to sell software. . . . You can't sell it when your competitor gives it away." "There must be a way to develop software and sell it on a royalty basis as a product . . . As it is now, value received is not related to what a particular customer must pay." Quantz, note 18 *supra*.

Also, "the market is controlled by IBM. And, points out one competitor, one of IBM's greatest strengths is the support it gives away under the blanket of fat prices." DATAMATION, Dec. 1966, at 17.

Recently a small chink has appeared in the armor. Scientific Data Systems (SDS) now markets its hardware and its software as two separate packages. DATAMATION, Dec. 1966, at 17.

58. *E.g.*, the compiler mentioned in note 30 *supra*.

59. "This practice causes users to pay for many items they do not need." Statement of Richard C. Jones, President of Applied Data Research, as paraphrased in ELECTRONIC NEWS, May 8, 1967, at 36. See also note 57 *supra*.

fact that the hardware firms use the expert help of the smaller firms. The tying causes a serious misallocation of scarce programming resources by funneling the programming skill of both hardware and software firms into the development of general purpose software that does not satisfy the actual needs of many consumers. Elimination of tying would free the software firms to choose between aiding the hardware firms and competing with them, thus producing an allocation of programming resources consistent with actual demand.

Tying is not a necessary evil. System software is unique to each computer model, but the ability to produce it is not unique to the manufacturer of that model. Thus, no valid argument can be made that hardware will not function without the tied software. Whether the software houses can develop good system software is in any event irrelevant, however, since if they cannot do so consumers will soon discover the fact.[60] If tying is truly necessary, then it is quite unnecessary.

The evil of tying will not be exorcised by patent protection, which is impotent to destroy the enormous anti-competitive power of the hardware giants. This power, however, contravenes the policy of the anti-trust laws,[61] and serious consideration should be given to the possibility that the tying arrangement violates them.[62] The structure of the arrangement is similar to

60. This was one rationale used by the Court in striking down IBM's tying of its data processing cards to the rental of its machines. International Business Machines Corp. v. United States, 298 U.S. 131 (1936). This action was under § 3 of the Clayton Act, 15 U.S.C. § 14 (1964).

61. The courts take the position stated by Justice Frankfurter: ". . . tying agreements serve hardly any purpose beyond suppression of competition." Standard Oil Co. v. United States, 337 U.S. 293, 305 (1949). "They are unreasonable in and of themselves when a party has sufficient economic power . . . ." Northern Pac. R.R. v. United States, 356 U.S. 1, 6 (1958). This action was brought under sections 1 and 4 of the Sherman Act., 15 U.S.C. § 1, 4 (1964).

62. The preceding portion of this article demonstrates that this tying practice is responsible for a substantial market effect, since the software houses are now willing and able to handle a very substantial volume of system software. The reason they have been prevented from supplying superior equipment, and thereby revitalizing a sluggish industry, is tying.

That all the manufacturers (except SDS, see note 57 *supra*) indulge in the practice does not exonerate them. *See* Judson L. Thomson Mfg. Co. v. FTC, 150 F.2d 952 (1st Cir.), *cert. denied*, 326 U.S. 776 (1945), where all the manufacturers of riveting guns tied their rivets to their guns. Nor does the fact that software companies have increased in number: in *Dictograph Products v. FTC* the defendant's competitors increased from fewer than 20 to 80 in 13 years, yet the defendant was held guilty. Dictograph Products v. FTC, 217 F.2d 821 (2d Cir. 1954) (exclusive dealing, not tying). Moreover, in *Standard Oil*, the Court held that where defendant held a powerful, though clearly not dominant, position in the trade, with a substantial percentage of the industry's business handled via the allegedly unlawful mechanism, other economic effects of the system were irrelevant. Standard Oil v. United States, 337 U.S. 293 (1949). Standard Oil had 23% of the relevant market. *Id.* at 295; IBM has 71% of the domestic computer market. BUSINESS WEEK, June 3, 1967, at 40.

The argument has often been made by defendants in tying actions that for one reason or another the tying item will not function properly without using defendant's tied item. *See* International Business Machines Corp. v. United States, 298 U.S. 131 (1936); United States v. Jerrold Electronics Corp., 187 F. Supp. 545 (E.D. Pa. 1960), *aff'd per curiam*, 365 U.S. 567 (1961); Dehydrating Process Co. v. A. O. Smith Co., 292 F.2d 653 (1st Cir.), *cert. denied*, 368 U.S. 931 (1961).

In *Dehydrating Process Co.*, the manufacturer of a silo unloader refused to install it in silos other than those he had manufactured himself. Defendant was successful, but

that in the color film industry around 1950, when Eastman Kodak sold its color film only with processing included.[63] As part of a consent decree, Kodak was ordered to charge separately for its film and processing.[64] If a similar constraint were imposed on hardware firms, system software would, with proper patent protection, become a competitive item.

IV. What Programs Are Now Patentable?

Under the present law[65] "patentability" is a term of some ambiguity as applied to programs. The most important feature of the current debate on which kinds of programs, if any, are now patentable is that it turns on illusory semantic distinctions.

There are two main avenues open to programmers seeking to patent their inventions. They may attempt to patent the process or "method," or they may apply for a patent on the apparatus that implements the method. The Patent Office's Guidelines to Examination of Programs seek to forbid method claims for so-called "algorithm" processes and to permit them for "utility" processes.[66] According to the Guidelines, a

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this practice had been adopted only after he had received many complaints from customers who had tried to use his unloader unsuccessfully with other silos. The defendant there proved that his policy was pursued in good faith, and without any intention to tie. Justification also succeeded in the *Jerrold* case. Since the community antenna TV industry was in its infancy, there was no reliable firm other than the defendant to service units, and the defendant established that his reputation and his business depended on the existence of quality service for his product. The cases indicate that ordinarily the market place, not company policy must determine whether one item will perform satisfactorily without the other. "Any review of the tying cases generally . . . dictates a conclusion that the opportunities for justification are not great." Frost, *Tying Clauses and Package Licensing*, 28 U. Pitt. L. Rev. 207, 218 (1966). The above cases were all decided under § 3 of the Clayton Act.

63. "In the early stages of the marketing program there were no other firms qualified to develop such film; but in the course of time, after a wide market for the film had been established small processors are equipped and competent to do the developing." 1 L. Schwartz, Free Enterprise and Economic Organization 638 (3d ed. 1966).

In the computer field, where originally there were few or no software firms, system software of necessity was developed exclusively by the hardware manufacturers; but after the market was established, there was a proliferation of software houses.

64. United States v. Eastman Kodak Co., 1954 Trade Cas. ¶ 67,920 (W.D.N.Y. 1954). Paragraph V of consent decree.

Kodak was further ordered to grant non-exclusive licenses, to process at reasonable royalties, to furnish applicants with a description of color processing methods, to furnish technical assistance, to sell processing materials, and to divest itself of certain of its facilities. *Id.* paragraphs VI, VII, VIII, XI, and XII of the consent decree.

65. The Patent Office's interpretation of the present law in this area is set forth in the *Guidelines*, note 7 *supra*.

The Patent Office has never knowingly issued a patent directed to a "computer program, per se." Testimony of Commissioner Brenner before the House Judiciary Subcommittee on H.R. 5924, April 17, 1967, reported in Nimtz, *supra* note 24, at 15. Brenner also stated that section 106 of the proposed Patent Act codified his interpretation of the present law.

It is noteworthy that programs are patentable in Great Britain. Slee & Harris's Applications, 1966 Pat. Cas. 194. "Claim to computer when modified to operate according to method allowed. Claim to means for controlling computer allowed." *Id.*

Australia, too, has allowed computer programs to be patented. Datamation, June, 1966, at 85.

66. *Guidelines to Examination of Programs*, 829 Off'l Gazette of the U.S. Pat. Off. 1, 2 (1966).

UTAH LAW REVIEW

COLLEGE OF LAW
UNIVERSITY OF UTAH
SALT LAKE CITY, UTAH 84112

April 18, 1968

Manager OR LEGAL COUNSEL
Digital Equipment Corporation
146 Main Street
Maynard, Massachusetts 01754

Dear Sir:

I am in the process of completing an article on legal protection for computer programs, for the Utah Law Review. Recently an article pertaining to this subject was published in the Columbia Law Review advocating patent protection and indicating that the hardware industry's practice of "trying" software to hardware sales may result in violations of the antitrust laws. The antitrust portion of the article is enclosed.

I have been impressed with the advantages of Digital's systems, especially with its strong software support. In fact I understand that Digital's approach has actually been software-oriented with hardware design to meet the software needs. I would be very interested in your reaction to the antitrust implications indicated in this article since if violations were found it would seem to have a profound effect on your business, perhaps more so than on the hardware industry generally because of your unusual systems design approach.

Because of our publication deadline I would appreciate an early reply, if possible. Thank you for your assistance.

Sincerely,

Ronald V. Thurman

Ronald V. Thurman
Assistant Editor

RVT:jl

digital

April 29, 1968

Mr. Calvert Dooman
Tri-Continental Corporation
65 Broadway
New York 6, New York

Dear Mr. Dooman:

Thank you for your interest in Digital Equipment Corporation's program of computers in education.

Enclosed is a copy of the Focal Flyer and of the Focal Programming Manual.

If I can provide further information concerning computer extended instruction or our equipment, please contact me.

Sincerely,

Joan K. Fine

(Mrs.) Joan K. Fine
Education Applications

JKF/mc

Enclosures

cc: Kenneth H. Olsen

DIGITAL EQUIPMENT CORPORATION, 146 MAIN STREET, MAYNARD, MASSACHUSETTS 01754
(617)897-8821 TWX: 710-347-0212 TELEX: 94-8457

Original to Joan Fine to answer.

TRI-CONTINENTAL CORPORATION

65 BROADWAY
NEW YORK 6, N.Y.

April 19, 1968

Mr. Kenneth Olsen
President
Digital Equipment Corporation
Maynard, Massachusetts 01754

Dear Mr. Olsen:

I believe we were the first large fund to make an investment in your fine company. Naturally, we are pleased with the way it has worked for us but we are hoping that you will have another meeting for analysts in the near future so that we can find out what is going on.

I am writing this letter because I was intrigued by Joan Fine's recent article "Computers In High Schools" (Computers and Automation, March 1968) and was considering trying to do a little selling for you with our local school system. Would you be kind enough to have someone send me a Focal manual so that I can get a better understanding of this language?

Thank you very much.

Sincerely,

Calvert Dooman

Calvert Dooman

CD/ilm

April 26, 1968

COPY

Mr. Fred O. Fleming
Administrative Manager
American Radio Company, Inc.
445 Park Avenue
New York, New York 10022

Dear Mr. Fleming:

Thank you for your letter of April 22nd advising us of the change in plans for Messrs. Chaussedoux, Colson, and Dechamp to visit our office.

We would be happy to have them visit us on Tuesday, May 7th; however, Mr. Olsen has a meeting scheduled first thing in the morning. If it would be convenient for them to arrive sometime after 10:00 a.m., we would appreciate it.

We will wait to hear further details from you.

Very truly yours,

(Mrs.) Elsa C. Carlson
Secretary to the President

AMERICAN RADIO COMPANY
Incorporated

445 PARK AVENUE
NEW YORK, N. Y. 10022
(212) 753-5046

April 22, 1968

DIGITAL EQUIPMENT CORPORATION
Maynard, Mass.

ATTENTION : Mrs. Elsa C. CARLSON
Secretary to the President

Dear Mrs. Carlson :

Many thanks for your letter of April 8, giving us Mr. OLSEN's approval to the visit of Messrs. Chaussedoux, Colson, and Dechamp, for Monday, April 29th.

We just have been advised that these gentlemen must delay their trip to U.S.A. and, therefore, ask for permission to postpone their visit with you until Tuesday, May 7th.

Will you please be good enough to inform us if this date will be convenient.

Thanking you in advance for your courtesy, we remain

Very truly yours,

Fred O. FLEMING
Administrative Manager

FOF/yr

CABLES: AMRADIOCOM WESTERN UNION: 12.6861 TELEX: 224261 RCA

April 25, 1968

COPY

Mr. H. W. Richardson
H. M. Customs and Excise
7 Castle Street
Reading, Berkshire, England

Dear Mr. Richardson:

Your recent letter was referred to me for acknowledgement. Enclosed please find a copy of our local newspaper, as you requested. Good luck with your hobby; it must be fascinating to read news from various communities throughout the world.

Very truly yours,

(Mrs.) Elsa C. Carlson
Secretary to the President

Enclosure

H.M. CUSTOMS AND EXCISE
7 Castle Street, READING, Berks.
Telephone: Reading 55092
ENGLAND

Please address any reply to
THE OFFICER
and quote:
Your reference:

18. 3. 68.

Dear Madam,

Would you be good enough to send me a copy of your local newspaper, if it not asking too much?

I am interested in collecting papers from different parts of the world.

Will gladly send you one, if you have a like interest.

Yours faithfully.

D. W. Richardson.

digital

April 23, 1968

Dr. John F. McNall
Assistant Director
SPACE ASTRONOMY LABORATORY
The University of Wisconsin
35 North Park Street
Madison, Wisconsin 53715

Dear Dr. McNall:

As Product Line Manager of the PDP-8, I am directly responsible for the satisfaction of PDP-8 customers, as well as the Engineering support for the PDP-8 and the DF-32 Disk. I was, therefore, extremely concerned over your letter of February 21 expressing dissatisfaction with these products and their servicing. I also appreciate your taking the time to specifically detail the problems you encountered so that I could seek out the causes and prevent them from happening again to you or to other customers.

With regard to the computer problems, Ken Olsen has already stated that we feel the switch used in the PDP-8 has given us good service across the Product Line and it is regretable that you encountered a problem with them.

The DF-32 Disk was developed under my personal guidance and I am thoroughly familiar with the weeks of work that went into the fine tuning of the design to eliminate sneaky noise problems, intermittent errors, and the like, to provide a truly reliable product. I have also visited several competitive disk manufacturers and I have discussed and compared reliability data with their Engineers. As a result of this exposure, I am absolutely convinced that the DF-32 Disk is the MOST reliable disk on the market in its price/performance class.

Nevertheless, you have had an atrocious experience with the DF-32 and I am sure you would not agree with my foregoing statement. You did receive an early disk in the production cycle and, as a result, you fell heir to the Write-Lock problem. This problem was discovered, corrected, and recorrected through a series of three ECO's which were installed in your unit in a very sloppy manner. You also had difficulty with the flexprint cable and several track connectors. Aside from the Write-Lock problem, we have not generally experienced this kind of problem in the some 150-200 disks now in the field.

DIGITAL EQUIPMENT CORPORATION, 146 MAIN STREET, MAYNARD, MASSACHUSETTS 01754
(617)897-8821 TWX: 710-347-0212 TELEX: 94-8457

The Fiducial mark pulse generator circuit was designed with zener diodes and a 100 ohm resistor that were underrated for worse case conditions. Although this has been corrected via ECO, we have not experienced difficulty with the sync pulse generator to date.

I can summarize my comments regarding the DF-32 Disk by saying that it has proven to be an extremely reliable device and has not suffered the customer so much distress in any other installation.

Unfortunately, this uncommon confluence of problems was compounded by some sloppy workmanship on the part of our Field Service crew. I appreciate your comments on these problems, particularly since I am constantly attempting to raise the level of competance of our Field Service force. As you may imagine, the hiring, training, and deployment of sufficient skilled field diagnosticians to keep abreast of our growth in PDP-8 business is an immense task. Consequently, there are some inconsistencies in the level of competence apparent to the customer. Be assured that I am aware of this problem and I spend a large portion of my time working on it. On the other hand, if you review your own experience integrated over the duration of your relationship with DEC, I think you must admit that in comparison to our competitors, our Field Service organization stands on top with regard to response, attitude, and engineering understanding of the products.

I am glad that we have finally straightened out our problems and I hope you are enjoying the use of your equipment without further incident. If I can be of any help to you in any way, please do not hesitate to call on me at any time. I sincerely hope that through reliable operation of your equipment, your former feeling of confidence in DEC and its products will be restored.

Sincerely,

Michael A. Ford

Michael A. Ford
PDP-8 Product Line Manager

MAF:eem

cc: Kenneth H. Olsen

Nick to look into problems and answer.

March 7, 1968

Dr. John F. McNall
Assistant Director
Space Astronomy Laboratory
The University of Wisconsin
35 North Park Street
Madison, Wisconsin 53715

Dear Dr. McNall:

When you accuse us of being careless in quality because of our success in the computer field, you touch me in a very sensitive spot. I now spend more time than ever working on the quality of our products, and, in general, have been quite proud of our success.

The products we are now turning out are much better than we ever had in the past, and, from what we understand, are better than any of our competitors'. How in the world we could ever deliver so much bad equipment to one customer is beyond my comprehension.

We are looking into all your complaints in detail and will let you know what conclusions we come to. We do appreciate hearing about this because our future is completely dependent on our reputation for delivering quality equipment.

I would like to defend our "cheap switch." This is one which I selected personally and have watched very carefully. The fact that it is a simple, open switch appeals to me as an engineer. Although we have had defective switches at times, the fact that this is simple in its construction has, I believe, caused us less problems than we previously experienced with very expensive switches.

We will get in touch with you again to let you know the results of our analysis.

Sincerely yours,

Kenneth H. Olsen

KHO:ecc

digital INTEROFFICE MEMORANDUM

DATE: February 27, 1968

SUBJECT: DR. MC NALL'S LETTER

TO: Ken Olsen

FROM: Bob Collings

I looked into the various grievances of Dr. John McNall expressed in his letter of February 21, 1968 and although he may have been overly critical in some instances (Dr. McNall is a PHD in Electronics and perhaps is supersensitive to problems, their causes, and "better solutions," i.e., his own solutions) in general, he has had an abnormal amount of difficulty for which we are to blame.

It is unfortunate that the field installation report for the Disc File has not been received, as it is not possible to exactly determine the extent to which these problems were resolved by Field Service during installation, or whether they occured subsequent to installation. Because this data was lacking, I checked with Gil Slaw to obtain the information required.

The problems Dr. McNall encountered seems to be of four distinct types: A) Reoccuring problems - those problems we have noted in other similar DEC equipment, which may or may not have been improved by an ECO, B) Random problems - problems not "normally" found in this type of equipment but still the responsibility of DEC, C) Questionable problems - a question exists whether or not this was truly a problem in this situation, D) McNall's problams - problems probably not due to improper operation of DEC equipment but to other equipment in the system. Specifically for each item on his list:

Disc Problems

1. Write Lock out failed to work initially - (Reoccuring problem, improved by ECO)
2. Dirty contacts and/or weak connector springs on timing track connector - (Questionable problem)
3. Diode recovery time problems on 2 - R 205 modules - (McNall's problem as those modules are used in his own interface)
4. Bad diode in R111 - (Random problem occured after acceptance & check-out)
5. Bad design of fiducial mark pulse generator, fixed by us with re-design - (Questionable problem, although it is recognized this design may not be optional)

6. Solder chip firmly connected to a memory buffer bus bar finally shorted to adjacent mamory bus - (Random problem, should have been caught by DEC Q.C.)
7. Bad design of E.C. (item 1) which resulted in marginal lockout condition. The resistor used on the OR gate was too large to insure a good ground level - (Reoccuring problem - second ECO issued to correct resistor size. This ECO has not been installed in this system yet).
8. Unsoldered joint on E.C. (item #1) - (Random problem - fault of DEC wiremen)
9. Several wires on back of WLO panel crimped between panel and chassis - (Reoccuring problem in process of being modified)
10. Intermittant open in flexible printed circuit harness under the disc (a rediculous thing to use!) - (Reoccuring problem - in process of being modified)
11. The R-302 run by TTA was used more often than its specifications allow. Fixed by us, by inserting a dynamic recovery circuit. - (Questionable problem)
12. Several problems were cured by removing and reinserting boards, indicating dirty contacts or weak springs in the connectors. - (Questionable problem)
13. The wire wrap on the disc electronics is very poor; many soldered wraps, and others in the process of unraveling. - (Random problem, fault of automatic wire-wrap; should have been caught by DEC Q.C.

PDP-8 Problems

1. Power-on switch miswired - (Questionable problem)
2. Output AC connector wiring inverted - (Questionable problem)
3. Metal filings inside switched - (Reoccuring problem with register switches, provided McNall new set of switches)
4. Abnormal sensitivity to static charges - (McNall's problem, system has several extensive interfaces connected to it and the static problem disappears when the interfaces are disconnected)
5. R650's collapsing - (McNall's problem- this has occured on System #6 not #767, again due to the extensive interfacing.
6. Cheap and defective switches -
7. PC clear and on lead address (Intermittant) -
8. Shifting of C(AC) on EXAMINE -

} (Reoccuring problems - all probably related to switches)

9. The run flip-flop gets set on power turn off, destroying the program in memory unless the single instruction key is on - (Reoccuring problem - master clock slow in starting)

SPACE ASTRONOMY LABORATORY
THE UNIVERSITY OF WISCONSIN
35 N. PARK STREET
MADISON, WISCONSIN 53715

In reply please
refer to: 116

February 21, 1968

Mr. Kenneth Olsen,
President
Digital Equipment Corp.
146 Main Street
Maynard, Massachusetts 01784

Dear Mr. Olsen:

Success has apparently spoiled you. We received PDP-8-6 from you several years ago, and that machine has performed very well in spite of a few minor initial difficulties. On the strength of that performance we have since ordered another PDP-8, a disc unit, and several thousand dollars worth of DEC modules. This equipment has had an unusual amount of trouble.

Several of the logic modules have simply collapsed in normal use. The computer itself has never worked properly either electronically or mechanically. The fact that you have built a machine on a 200 lb. welded steel frame and mounted 25 of the cheapest switches you can find on the front of it would be inconceivable if not for its reality. You have shipped us a disc with an electronically conductive bum between its bus wires, shoddy connectors, a broken wire, defective boards, and faulty logic. To fix some of the logic you sent us a technician who installed more faulty logic, pinched the wiring, installed more faulty logic, pinched the wiring, and didn't even solder his joints effectively.

The disc is a particularly sore point. Its design at several points is inexcusably poor. The device has given us trouble ever since its installation, wasting our time both in repairing it ourselves and in programming delay due to down time. The last repairman you sent wasted three days and did nothing. We found the trouble ourself after he left, but it took us two more days to repair the "adjustments" he had made. We have had to redesign three circuits in the device, circuits which our technicians would never have installed in the first place.

Needless to say, we are unhappy. Except for Mr. Slaw of your Chicago Office, there are none of your maintenance personnel that seem to be competent in their field. Since we have invested more than two man months of highly skilled labor in the disc system, we will be able to handle our own troubles, but we feel sorry for other users.

This letter is merely a document with which to vent our spleen. You will observe that we have been favorable to DEC equipment in the past (Decuscope Vol. 6, No. 4, 1967). Because of our position in this type of computer application we have been frequently asked to evaluate equipment, and have recommended you several times. Obviously we cannot do this in the future. The unrealiability of your equipment has already set us over a month behind a critical schedule. You might consider that although your firm is quite successful, it is perhaps yet small enough to allow poor performance to catch up to your reputation.

A list of specific difficulties is enclosed as documentation of the reasonableness of our dissatisfaction.

Sincerely,

John F. McNall

Dr. John F. McNall
Assistant Director
Space Astronomy Laboratory

JFM:dt
Enclosures 2
cc: Mr. Thomas Quinn

Disc Problems

1. Write Lock out failed to work initially - fixed by DEC with E.C.
2. Dirty contacts and/or weak connector springs on timing track connector.
3. Diode recovery time problems on 2 - R 205 modules.
4. Bad diode in R111.
5. Bad design of fiducial mark pulse generator, fixed by us with re-design.
6. Solder chip firmly connected to a memory buffer bus bar finally shorted to adjacent memory buffer bus.
7. Bad design of E.C. (item 1) which resulted in marginal lockout condition. The resistor used on the OR gate was too large to ensure a good ground level.
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11. The R-302 run by TTA was used more often than its specifications allow. Fixed by us by inserting a dynamic recovery circuit.
12. Several problems were cured by removing and reinserting boards, indicating dirty contacts or weak springs in the connectors.
13. The wire wrap on the disc electronics is very poor; many soldered wraps, and others in the process of unraveling.

PDP-8 Problems

1. Power-on switch miswired.
2. Output AC connector wiring inverted.
3. Metal filings inside switches.
4. Abnormal sensitivity to static charges.
5. R650's collapsing.

The following problems still exist, for we have been too busy fixing the disc to trace them. They occurred originally within the first month of operation.

6. Cheap and defective switches.
7. PC clear on load address. (Intermittent).
8. Shifting of C(AC) on EXAMINE.
9. The run flip-flop gets set on power turn off, destroying the program in memory unless the single instruction key is on.