

SEPTEMBER

DIGITAL EQUIPMENT CORPORATION

MAYNARD, MASSACHUSETTS

KENNETH H. OLSEN
PRESIDENT

September 30, 1969

Mrs. Stevelyn Peters
86-20 Park Lane South
Woodhaven, New York 11421

Dear Mrs. Peters:

We are pleased to hear of your interest in DEC. Because of this interest, I would like to take the time to personally answer some of the questions you have in mind.

Several years ago we authorized more stock, and a few months ago used this to make a stock split so the price per share would be lower. This did nothing to the Company or our stockholders, except make the units smaller so it would be easier for more people to buy and sell and so more purchases would be in round lot sizes.

We are now asking for increased shares, not for any manipulation, but simply so that someday, when the price again rises to a number that might discourage people from buying, we will be free to have a stock split to encourage more broad ownership of DEC stock. Let me assure you that there is no manipulation in this, and we are very conscious of the fact that it does nothing to any one stockholder's share of the Company.

You asked about our relationship with American Research and Development Corporation. We are on very friendly terms with them, and, because of their experience in business, often find it convenient to ask their advice. I can think of no time in which American Research forced us into a decision because of their large ownership in DEC. We have an excellent relationship with them, and are very appreciative of the advice which we feel we can get from them when we need it.

I hope these answers make you feel more at ease with what you read in the Prospectus.

Sincerely,

Kenneth H. Olsen
ecc

Kenneth H. Olsen

KHO:ecc

Sept 24/69

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

Dear Mr Olsen

I had to vote against the proposal to increase your stock to 36,000,000 shares.

I am not in favor of any manipulation of this nature.

American Research suggested the same proposal on their stock, which I also voted against and at the time I told them that any such increase of their stock should be given to the stockholders and as you are aware they eventually did.

I fully realize that American
Research are large share
holders of Digital and two
Vice Presidents are members of
your board. But you have
the product and they are a
holding Company i.e. DIGITAL,
Teledyne etc. and I was
wondering whether they could
influence the decisions of
Digital, "I hope not".
For your information I am
a holder of IBM for many
years and I thought Digital
could be another IBM.

Sincerely,
Mrs. Evelyn Peters
86-20 Park Lane So
Woodhousen N.Y.
11421

September 26, 1969

Mrs. Etta Weintraub
140 West End Avenue
New York, New York 10023

Dear Mrs. Weintraub:

Your letter of September 12, 1969, to Mr. Kenneth, H. Olsen, President of Digital Equipment Corporation, was forwarded to me by him for reply.

I am sorry that you were unable to take advantage of our recent public issuance due to problems which you experienced in receiving a timely copy of the Prospectus.

Generally speaking, when Digital Equipment Corporation has a public offering it negotiates this offering with the principal underwriter, in this case Lehman Brothers, based upon many and varied facts and contingencies. It is certainly expected at that time that Lehman Brothers will follow generally accepted rules in the sale of the subject stock. Our past experiences with Lehman Brothers over the past three years have been excellent. This is not to say that oversights have not or will not occur in the established procedure. I am sure that they have been and will be very few in number.

The officers of Digital Equipment Corporation are always cognizant of their responsibilities to the stockholders of Digital Equipment Corporation and the part which the stockholders play in the success of the corporation itself. We therefore are pleased that you took the time to write to us concerning your unpleasant recent experience and we shall make every effort to see that it does not recur.

Very truly yours,

DIGITAL EQUIPMENT CORPORATION

Edward A. Schwartz
General Counsel and Secretary

EAS:lm

CC: Mr. Kenneth H. Olsen

9-23

10/7 Will send reply

Ed Schwartz to answer

GRAMERCY 3-2590

BY APPOINTMENT

DR. AARON WEINTRAUB
OSTEOPATHIC PHYSICIAN
44 WEST 9TH STREET
NEW YORK 11, N. Y.

September 12, 1969

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

Dear Sir:

I have been a stockholder of Digital Equipment since 1967. Thanks to your fine company the stock has done very well in my portfolio.

A letter was received by me from your company, stating that 250,000 shares of Digital Equipment was going to be offered to the present stockholders and to send for a prospectus to Lehman Bros., One William Street, New York City.

On August 23, 1969 I received the prospectus. The envelope is dated August 21st, the day the offer expired. My broker (Blair & Co.) called Lehman Bros., and they said it was too late to do anything about it. ((I wished to purchase 50 shares)) How could I possibly subscribe for something that I did not receive until two days after expiration. As you know the stock has gone up quite a bit since the offering and that just adds to my chagrin.

It is sad that a company as reputable as the Lehman Bros. is not adhering to the proper rules. I am sure that with the potential your company has, you would like to have the stock handled in a proper manner. Thank you very much for reading this letter.

Very truly yours,

Aaron Weintraub
140 West End Avenue
New York, N. Y. 10023

Enclosure:



September 26, 1969

Mr. Norman R. Scott, Dean
The University of Michigan
Dearborn Campus
4901 Evergreen Road
Dearborn, Michigan 48128

Dear Norm:

I am writing in behalf of Ken Olsen to thank you for your letter of September 17, 1969. The PDP-8 is still available due to certain OEM customers which have not reengineered to the more recent PDP-8/I or PDP-8/L.

From time to time we also have used machines which can be sold at a lower price. These are normally taken by customers who wish to duplicate their original systems or OEM's who are hedging against future requirements.

We normally sell these at \$12,000. which is just below the PDP-8/I. I realize that this price is high but if you are interested we can make a long range plan which would allow the addition of various desirable options at an extremely favorable price; i.e. DEC Tape, High Speed Paper Tape, A->D Converters, CRT Display interfaces, etc. Used options are available for the PDP-8 where they are not yet available on the PDP-8/I and L.

We can also contribute other equipments which have become obsolete to our manufacturing procedures but are still very useful and would serve your purpose in training Electrical Engineers in Computer System Design.

Mr. Norman R. Scott, Dean
The University of Michigan
Dearborn Campus

-2-

If you are interested in pursuing this further, please give me a call as I can better describe what I have in mind. Or if you find yourself in the New England area, please arrange to visit with us to inspect this equipment.

Best regards from both Ken and myself.

el

cc: Ken Olsen ✓
DEC, Ann Arbor

R. L. Lane
R. L. Lane

9-23
Bill Long to a no.

THE UNIVERSITY OF MICHIGAN

DEARBORN CAMPUS
4901 EVERGREEN ROAD
DEARBORN, MICHIGAN 48128

NORMAN R. SCOTT
DEAN

September 17, 1969

Mr. Kenneth Olson, President
Digital Equipment Company
146 Main Street
Maynard, Massachusetts 01754

Dear Ken:

Over the years the Digital Equipment Company has been more than generous to the Department of Electrical Engineering at The University of Michigan, initially through the good offices of Harlan Anderson and later through a number of other people with whom we have had contact. We started out by acquiring a substantial installation of the first logic circuitry which you yourself developed and marketed, and then we gradually replaced this with some of the digital laboratory units built around flip-chip modules. Much of this equipment was acquired at a substantial cost reduction, and about two years ago DEC was very generous in facilitating the acquisition of a LINC-8 and a PDP-8 by the Electrical Engineering Department.

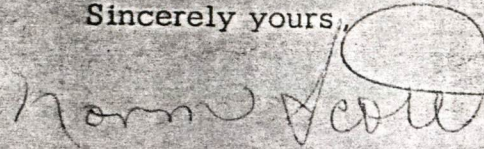
Although I was closely associated with the development of the Electrical Engineering Department's digital computer engineering laboratory from its inception, I have recently taken on a new set of responsibilities as Dean of the Dearborn Campus of The University of Michigan, and I discover that our digital computer engineering facilities here leave much to be desired. I would like to take some small steps in creating here the kind of modern facilities that a good engineering program should have, and my hope is that we can establish a laboratory built around the PDP-8, supplemented by some plug-board logic units using modern integrated circuits. I am enclosing for your information a description of a unit built in Ann Arbor and embodying a PDP-8 which has been successful in course work for electrical engineering students, and it is essentially this system which I would like to duplicate here on the Dearborn Campus. Although I am aware that the PDP-8 has been modernized in some of its more recent versions, I think the original PDP-8 is more suitable for our purposes than some of the subsequent versions, and I am writing to ask you what the availability of this machine is. If there is any possibility at all that a used machine could be made available to us substantially below its original cost, I am confident that we will be able to make excellent use of it in training electrical engineers in computer system design.

Mr. Kenneth Olson
Page 2.

We would enormously appreciate any consideration that you might be able to give to this request.

Please give my warm regards to your brother, Stan, and also to one of my former students, Stan Booth, who joined your company a few years ago.

Sincerely yours,

A handwritten signature in cursive script, appearing to read "Norman R. Scott". The signature is written in dark ink and is positioned above the printed name.

Norman R. Scott

lm
encl.



September 25, 1969

H. Bradford Thompson
Professor of Chemistry
University of Toledo
Toledo, Ohio 43606

Dear Professor Thompson:

I am writing in response to your letter to our President, Mr. Olsen, concerning DEC services.

All DEC Computer Systems are warranted for ninety (90) days. This includes repair and or replacement of all defective materials and parts. In addition, DEC provides a ten year warranty on its modules with a minimum service charge for repair or replacement of these modules after the first year. However, this module warranty is conditional upon return of the modules to our Maynard Plant repair facility.

If we provide on-site service after the ninety (90) day system warranty, and repair or replacement of a module is required, a small parts charge is incurred. To my knowledge this was not the case with your system, and if I am in error then will make the proper adjustments.

I have talked with Don Long, our Ann Arbor Service Manager, concerning your requests for service and recommend you deal directly with him in the future.

Larry Portner, Manager of Programming, is looking into the software problems and will answer you shortly.

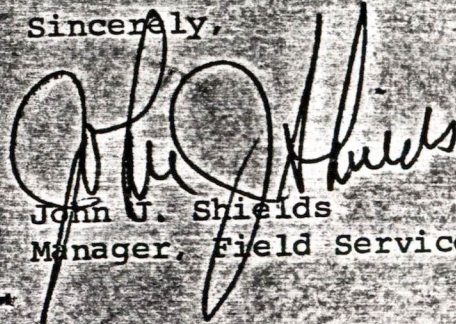
H. Bradford Thompson

-2-

September 25, 1969

Please accept our apologies for any inconvenience you have had. I trust that we have taken steps to insure that we have a good line of communications and that these problems will not occur in the future.

Sincerely,



John U. Shields
Manager, Field Service

JJS:smh

CC Ken Olsen ✓

9/15 Carol to make sure it gets axed



THE UNIVERSITY OF TOLEDO

TOLEDO, OHIO 43606 • AREA CODE 419 • 531-5711

COLLEGE OF ARTS AND SCIENCES
DEPARTMENT OF CHEMISTRY

September 8, 1969

*Copy to Stan Olsen
Larry Partner*

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

Sir:

DEC makes a very fine line of products. I wish to call to your attention, however, the irregular and inconsistent support in terms of hardware and software maintenance, and the misinformation in your promotional literature, that faces the user.

An example is covered by the letter herewith, which I recently sent to the Ann Arbor office concerning warranty service on an AX-08 we recently obtained. Incidentally, the original promotional literature given me on the AX08 was misleading concerning the nature of the binary inputs. Since our projected use involved these inputs and the deadtimeless pulse input supposedly possible through them, we were sold the peripheral under misapprehension. We have spent several hundred dollars to build separately the necessary interfacing.

As also noted in the letter, statements made concerning the warranty on modules is apparently misleading, since a parts charge for the replacement of modules is made when repairing an instrument.

I have on several occasions contacted DEC personnel regarding both hardware and software. In direct conversation, your men are very helpful. However, formal written requests for assistance can meet with halfhearted replies or none at all. The AX08 matter is a case in point. On another occasion, I filed a software trouble report regarding 4K FORTRAN. I received a reply stating that certain subscripts were not usable, and referring me to a particular software bulletin. Since the software bulletin in question predated both my purchase of the computer and the publication date of my 4K manual, this reply was somewhat less than satisfactory. Furthermore, the reply did not specify exactly what form of subscript was invalid and whether this could be corrected

Along another line, I have tried to obtain, both by mail to your home office and through the Ann Arbor sales office, information on your "new, improved" 8K FORTRAN. I get no response whatsoever.

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

September 8, 1969
Page two

When I have as many bad experiences with a concern as I have had with DEC, I usually look for another. However, I am convinced you make excellent products. I am at present working out plans for a data handling and computing system for our department. Is there reason to believe that DEC's backup services will match its products?

Sincerely yours,



H. Bradford Thompson
Professor of Chemistry

HBT:sg



THE UNIVERSITY OF TOLEDO

TOLEDO, OHIO 43606 • AREA CODE 419 • 531-5711

COLLEGE OF ARTS AND SCIENCES
DEPARTMENT OF CHEMISTRY

September 8, 1969

Donald W. Long
District Field Service Manager
Digital Equipment Corporation
115 Huron View Boulevard
Ann Arbor, Michigan 48103

Dear Mr. Long:

Your letter of 13 August concerning a maintenance contract on our AX08 is noted. I should like to point out that during the period of the original warranty, I reported, both to your office and to Maynard, that the instrument was not functioning properly. I received no reply from either, and have, with the aid of the excellent manual furnished with the machine, repaired it myself. This involved the replacement of two modules.

I further note, that modules are supposedly guaranteed for a very extended period. A purchaser might then believe that if repair of an instrument involved replacement of modules, there would be no charge for the modules. However, on a recent occasion when our PDP-8/I required repair, a parts charge for a module was made.

In light of the above, it seems (a) that DEC guarantees and warranties are not always what they appear to be, and (b) that if service under contract is no better than service under warranty we can get along without the contract.

Sincerely yours,

H. Bradford Thompson
Professor of Chemistry

HBT:sg

cc: Maynard Office

DIGITAL EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

*Copy to Bob Lassen
Dimitri Simenc
Ed Schwartz*

KENNETH H. OLSEN
PRESIDENT

September 25, 1969

Mr. Alton B. Avery
Avery & Maynard Realtors
395 Massachusetts Avenue
Acton, Massachusetts

Dear Mr. Avery:

We are very sorry to hear of the unpleasant experience you have been having with some of our employees. We do try to hire people with the highest moral character, and we try to run the company with traditional values and ethics. We insist on good attitudes and behavior while our people are at work and we would like to believe that in general we are a good influence on our employees.

We do, however, feel that we have only a very limited influence over people's private lives and we don't imply that we can guarantee our employees' behavior.

I'm afraid our society is starting to pay the price of our "new morality" and so called "new sensitivity" to new social issues in which the individual has no responsibility, but the social group or the establishment is supposed to be perfect at all times and from all points of view. I am afraid with modern teachers, preachers, and liberated movies, we are going to see more of this.

If you would send us the names of those people who you don't feel have treated you responsibly, we will try to use that influence which we can legitimately use to help their attitude.

Sincerely yours,

Kenneth H. Olsen

KHO/bn

9-12-69

Copy to Bob Larsen

Ed Schwartz

9/15 Dimitri Dimandeev

Avery & Maynard Realtors
395 Massachusetts Ave.
Acton, Mass

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

Dear Mr. Olsen,

We own and manage apartments in Acton at Richardsons Crossing. It has been our custom since starting to rent to give priority to Digital Employees as per the written request of your personnel dept.

Out of the seventy two units we have had your employees involved in as many as one third of the total and they have been nothing but continual source of trouble. There are now several delinquent on paying their rent, we have been forced to evict some, they move without a proper notice, take keys with them and generally have an extremely poor attitude.

As your employees are finding it more difficult to locate living quarters, we feel that you should be made aware of the fact that we will not lease to Digital employees under any circumstances until we can be assured that our property will not be abused.

Yours Truly,

Alton B. Avery

Alton B Avery

Elsa

June 24, 1969

Maynard

Avery & Copeland Inc.
395 Massachusetts Avenue
South Acton, Massachusetts 01720

Dear Gentlemen:

Due to the constant influx of newly hired or transferred personnel to Digital Equipment Corporation, Maynard, there is a steadily rising demand of all forms of housing. It is my intention, via this letter, to establish a continuing association with reputable real estate agencies within the Greater Boston-Maynard areas. This association will assist us in servicing and aiding our employees in their search for suitable housing arrangements over an indefinite period of time.

I would appreciate your forwarding to my attention any and all literature or information pertaining to your operations. Also, if you publish weekly or monthly listings of properties or housing availability I would like to be included on your mailing list.

Enclosed you will find a copy of our 1968 Annual Report to acquaint you with Digital's operations and size. I hope you will find it informative.

Looking forward to hearing from you shortly, I remain,

Sincerely,

DIGITAL EQUIPMENT CORPORATION

Alan H. Silva
Personnel Representative

AHS/gja

digital

September 24, 1969

Mr. Paul A. Callender
Manager of Documentation
Advanced Computer Techniques Corporation
437 Madison Avenue
New York, New York 10022

Dear Mr. Callender:

In reply to your letter to Mr. Olsen of August 25, you might be interested to know that in addition we are also marketing PDP-8's, PDP-10's, PDP-14's and several special systems, all of which we supply with programming manuals.

Most of our programming manuals are written by the Software Writing Group, here in the Programming Department. However, it is possible that demand for writing services may exceed our capacity, so I am interested in learning more of your qualifications. I would like to look at some of your recent work, particularly the general-information FORTRAN and BASIC time-sharing manuals you mentioned.

Sincerely,

George Arnold
Software Documentation Manager

GA:er

**ADVANCED
COMPUTER
TECHNIQUES**

CORPORATION

8/28
Take d'Annunzio to answer
437 MADISON AVENUE / NEW YORK, NEW YORK 10022 / (212) 421-4688

cable address INTERACTCO

August 25, 1969

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

Dear Mr. Olsen:

Marketing your Product Lines 12, 15 and 9 computers includes giving the user the best possible manuals. These manuals should be able to supply the junior programmer with all the information he needs even though he has little or no formal training. Too often the opposite is true -- the manuals can only be used by the new programmer after class room instruction. Even the experienced programmer may take much more time to learn from them than is really necessary.

ACT happens to believe that software learning and reference information can be combined into a single manual. We have already proved this to such clients as GE, UNIVAC, Honeywell, Information Systems Italia and Olivetti.

One of our projects this year, for example, was to organize and write a complete set of customer manuals for the GE-105. This consisted of a Reference manual, an Assembly Language manual, a LOGEL (Logical Generator Language) manual, an Operator's manual, a Utility Programs manual and a Subroutines manual. The GE-105 is a small card computer (4-8K) that is being marketed in the U.S. by GE in conjunction with Olivetti. We are also just finishing two general-information FORTRAN and BASIC time-sharing manuals for a computer company.

We believe that we are producing some of the finest computer documentation in the field today and would be very happy to show you some samples. I am sure that a mutually convenient meeting can be arranged with you or your staff to discuss your current documentation plans.

Sincerely,

Paul A. Callender

Paul A. Callender
Manager of Documentation

PAC:ph

enclosure

~~ACT~~

NEW YORK • WASHINGTON • ATLANTA • PHOENIX • BOSTON



equipment corporation

MAYNARD, MASS. 01754
TWinoaks 7-8822 TWX MAYN 816

September 16, 1969

Mr. J. S. Samuels
Vice President of Operations
Machinery Inc.
Main Post Office Box 80
Toledo, Ohio 43601

Dear Mr. Samuels:

In regards to your letter of August 26, 1969, we presently do not have any surplus equipment. If in the future any used surplus equipment becomes available, your firms name is in our files and you will be considered.

If we could have a brochure of the various lines you represent, we could then tell you of any equipment that would fit your needs.

Sincerely,

DIGITAL EQUIPMENT CORPORATION

Dan Sullivan
Fabrication Manager

DS/shb

9/2
Dan Sullivan to ans.

Machinery Inc.

MAIN POST OFFICE BOX 80 • TOLEDO, OHIO 43601

PHONE: (419) 244-8605

PLANT: 1251 CAMPBELL STREET

MAILING ADDRESS

August 26, 1969

Digital Equipment Corporation
146 Main Street
Maynard, Mass. 01754

Attention: Mr. K.H. Olsen

Gentlemen:

We understand that you have some used machinery and equipment for sale. We would like to inspect this machinery immediately as we are setting up three jobbing-type plants in Brazil.

Please advise details of machinery and when it can be inspected. A Polaroid photo would be helpful if available.

Very truly yours,

MACHINERY INC.

J. S. Samuels

J. S. Samuels
Vice President of Operations

JSS/kc

P.S. Please advise us of your machinery requirements and keep us advised of your machinery surplus in the future.

digital

September 12, 1969

Mr. Samuel R. Maloof, Ph.D.
Memorionics, Inc.
3 Sandrick Road
Belmont, Mass. 02178

Dear Mr. Maloof:

This is in receipt of your letter to Mr. Kenneth Olsen regarding plated wire memories.

Digital Equipment Corporation is actively interested in any new storage device that can be produced to insure a better price - performance ratio than is now available from ferrite core technology.

We are interested in meeting with you the early part of next month to discuss our future plans to incorporate this technology. If this is agreeable with you, contact either Mr. Dick Best or myself.

Very truly yours,

Bob Hamel

cc: Ken Olsen
Dick Best

BH/lp

9/5
Dick Best and Bob Hamel
' to answer

MEMORIONICS, INC.

Specialists in Plated-wire Memories

3 SANDRICK ROAD
BELMONT, MASS. 02178

SAMUEL R. MALOOF, PH.D.
PRESIDENT
THEODORE J. HADGE
EXECUTIVE VICE-PRESIDENT

TELEPHONE
489-1724

August 23, 1969

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

Dear Mr. Olsen:

This is to inform you that I am one of two independent plated-wire memory manufactures in the country and wondered whether Digital Equipment has any plans for or would be interested in building memory systems around plated-wire. Plated wire is a serious competitor to ferrite cores and eventually will assume the greater share of the market because of its many advantages.

I enclose a sample for your inspection and would appreciate hearing from you at your earliest convenience.

Very truly yours,

Samuel R. Maloof
Samuel R. Maloof

digital

September 11, 1969

Mr. Carlos Alberto Novis Botelho
Prodata
Rua Do Ouvidor 104-GR 801-A
Rio De Janeiro, Brazil

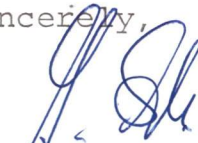
Dear Sir:

Thank you very much for your letter of September 3, 1969 requesting a business arrangement for the marketing of our products in Brazil.

Digital Equipment Corporation generally sells and services its equipment through its own subsidiaries whenever possible on a world-wide basis. In areas such as yours where we have little business activity, we handle each inquiry on a case by case basis and do not offer exclusive representation.

Thank you for your interest in Digital Equipment Corporation products. If we can be of any further assistance to you, please do not hesitate to let us know.

Sincerely,



Juergen Schroeder
Sales Support

JS:bu

9/10
Susan King

PRODATA

Engenharia e Sistemas Ltda.

RUA DO OUVIDOR 104-GR 801-A-TELS. 231-3431 E 231-3524
RIO DE JANEIRO-BRASIL

Rio de Janeiro, September 3, 1969

Mr. Bennett W. Olsen
President
DIGITAL EQUIPMENT CORPORATION
146 Main Street
Maynard, Mass 01754

Dear Mr. Olsen:

ENGENHARIA E SISTEMAS LTDA., a consulting company in electronic engineering and automation systems.

Being interested in the settlement of the small computers in Brazil we are looking for the DIGITAL EQUIPMENT CORPORATION interests. We really believe that the large computers of the IBM 360 and also its use is useful in our country for Government Bank and some companies only. The smaller size computers or have a computer with modules that or have the much data for data processing turn out the very expensive procedures.

Some time ago I met with some of computers when Mr. DeSantis J. Gile (12100 KENNEDY, Toronto, Canada) early this year invited me to drop the IBM 360 in Toronto (Linha 10000 KENNEDY). That was a profitable experience I did not loose.

Regarding the success in the Latin America market will be obvious if the customers have a concrete support from the manufacturer in terms of staff training and practice, maintenance and repair. There is no other reason for the difference in dealing between IBM and all other companies.

I suggest, looking forward a more complete of the available success, that ENGENHARIA E SISTEMAS LTDA. in order to accomplish all the needs of the prime investment in Brazil.

The market is very favorable and the "Feed Back" will show how good is taking activity.

With our class, still as a new company, we can introduce some of the representatives of DIGITAL EQUIPMENT CORPORATION in Brazil, a activity that will not interfere with IBM system. A more complete data will be the potential capabilities for programming.

Yours very truly

Copy
Mr. Bennett W. Olsen
DIGITAL EQUIPMENT CORPORATION
146 Main Street
Maynard, Mass 01754
Toronto 1 - Canada

ENGENHARIA E SISTEMAS LTDA.

Carl [Signature]

digital

September 11, 1969

Mr. R. R. Cassir
The Escort Company
M. Srour
Tasco Building 97
Rue Omar Daouk
Com. Reg. 111/20714
Beirut

Dear Mr. Cassir:

Thank you very much for your letter of August 26, 1969 requesting a business arrangement for the marketing of our products in the Middle East.

Digital Equipment Corporation generally sells and services its equipment through its own subsidiaries whenever possible on a world-wide basis. In areas such as yours where we have little business activity, we handle each inquiry on a case by case basis and do not offer exclusive representation.

Thank you for your interest in Digital Equipment Corporation and its products. If we can be of any further assistance to you, please do not hesitate to let us know.

Sincerely,



Juergen Schroeder
Sales Support

JS:bu

9/60

Susan King

THE ESCORT CO.

M. SROUR

TABCO BUILDING 97

RUE OMAR DAOUK (GEORGES FICOT)

COM. REG. 111/20714

TEL. ADDRESS: ESCORTACO

BEIRUT

26 August, 1969

The Director of International Operations
Digital Equipment Corporation
Maynard
Massachusetts

Dear Sir,

We are interested to know whether you have an agent in the Middle East.

At present, as you may be aware, there are only two computer manufacturers covering the Middle East (IBM, NCR). Neither of them, however, market mini-computers or scientific machines (except IBM IB30 in a non-real time environment). The market for such machines will in the near future materialize and we are very interested in the possibility of marketing your products here.

We are two brothers, both of us having been educated in the U.S. (one of us holds a Ph.D. in Electrical Engineering and the other an Honours B.Sc. We have worked in Europe with well established computer manufacturers of both scientific (mini-computers) and EDP.

We would indeed welcome the possibility of some future discussion with you on the above matter.

Yours faithfully,



R.H. Cassir

digital

September 11, 1969

Dr. Chang Jin Aye
Nantat Company
No. 77 New Brodge Road
Singapore 1

Dear Dr. Aye:

Thank you very much for your letter of August 25, 1969 requesting a business arrangement for the marketing of our products in South East Asia.

Digital Equipment Corporation generally sells and services its equipment through its own subsidiaries whenever possible on a world-wide basis. In areas such as yours where we have little business activity, we handle each inquiry on a case by case basis and do not offer exclusive representation.

Thank you for your interest in Digital Equipment Corporation and its products. If we can be of any further assistance to you, please do not hesitate to let us know.

Sincerely,



Juergen Schroeder
Sales Support

JS:bu

9/10
Susan King

CABLE ADDRESS:-
"NANTAT"

POSTAL ADDRESS:-
P. O. Box No. 864

NANTAT & Co.,

Importers, Exporters, Commission Agents &
Produce Merchants.

TELEPHONES:
70157
70516

SPECIALITIES: CELLOPHANES, CIGARETTE PAPERS, ALUMINIUM FOILS, PAPERS TOYS ETC.
No. 77, NEW BRIDGE ROAD, SINGAPORE, 1.

25th, August 1969.

Dear Sir,

My company is interested in promoting the sale of PDP series digital computers in the South East Asia. In Singapore, the use of digital computers such as IBM and ICL computers both in business data processing and scientific work is increasingly popular.

Personally, I have had three years of experience in using PDP 8 and writing PL/I language. I worked in the IBM office in United Kingdom for 2 years.

This is only a brief introduction to the one discussed other problems of computer maintenance service and software support. I am looking forward to read your views on this matter.

Yours faithfully,



Dr. Susan King

Director,
Digital Equipment Corporation,
Maynard, Massachusetts,
U.S.A.

September 10, 1969

Mr. T. R. Anthony Malcolm
North America Trust Company
1 Place Ville Marie
Montreal 2, Quebec, Canada

Dear Mr. Malcolm:

I want to thank you for your letter of August 15th advising us of your client's interest in either merging or being acquired by 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.

Sincerely,

Kenneth H. Olsen

KHO:ecc



NORTH AMERICA TRUST COMPANY

1 PLACE VILLE MARIE, MONTREAL 2, QUEBEC • TEL. 878-9521

August 15, 1969

Mr. K. H. Olsen,
Digital Equipment of Canada Ltd.,
150 Rosamond Street,
P. O. Box 370,
Carleton Place, Ontario.

Dear Sir:

We have noted with interest your Company's continued growth and active interest in acquisitions in keeping with your general program of expansion.

We are extremely active in the field of acquisitions, mergers, financing and disposal of business enterprises on behalf of clients in Canada, the United States and abroad. In consequence of our widespread connections, we are presently aware of a situation in the Province of Quebec where the principals have indicated their willingness to sell or merge with another corporation in the same field. In our opinion, it is a field strongly allied to that in which you presently operate. The Company to which we refer is an engineering, design, development and manufacturing company whose products are exclusively associated with the digital communications market. Although this Company is relatively young it has provided several significant projects in the past few years.

We would appreciate your advice at your earliest convenience as to whether you would be interested in pursuing this matter further. In any event, if you are contemplating any further acquisitions in the near future we would appreciate an opportunity of discussing your program of expansion with you and informing you of the many services which we have available.

Yours very truly,

NORTH AMERICA TRUST COMPANY

Per: 

T. R. Anthony Malcolm

TRAM/sr

September 10, 1969

Mr. Arthur H. Rogoff
Vice President
Robert S. Taplinger Associates, Inc.
415 Madison Avenue
New York, New York 10017

Dear Mr. Rogoff:

I want to thank you for your letter of August 28th concerning your client's interest in merging 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.

Sincerely yours,

Kenneth H. Olsen

KHO:ecc

C
O
P
Y

ROBERT S. TAPLINGER ASSOCIATES, INC.
415 Madison Avenue, New York, N.Y. 10017/Plaza 2-7722

PUBLIC RELATIONS

ARTHUR H. ROGOFF
Vice President
Client Acquisitions & Mergers

August 28, 1969

PERSONAL AND CONFIDENTIAL

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

Dear Mr. Olsen:

We represent a public company (OTC) which believes a merger with your company (with continuity of management) would be mutually advantageous.

Our client company does not want to be acquired, but seeks at the least a "partnership"-type interest in the resulting listed corporation.

\$15 million in net worth (including substantial cash), and earnings, would be contributed to the merged corporation by our client company, subject to certain conditions.

May we discuss this with you?

Sincerely,



Arthur H. Rogoff

AHR:ek

September 10, 1969

Mr. Stanley S. Oestreicher
29-08 31st Avenue
Apartment A-5
Long Island City, New York 11106

Dear Mr. Oestreicher:

I want to thank you for your recent letter advising us of merger possibilities.

We see the plans for DEC laid out quite clearly before us, and do not now see the need for making corporate ties.

Sincerely,

Kenneth H. Olsen

ecc

C
O
P
Y

29-08 31st Avenue
Apartment A-5
Long Island City, New York 11106
Telephone: 212 - AS 4-0314/5

RE: MERGER OR ANY SUITABLE COMBINATION

Dear Mr. President:

After our appreciation of your successful organization we decided to bring to your attention a business proposition that we believe has great merits.

We have a premanufactured plant to manufacture an absolutely "complete turn key job" for Industrial, Commercial and Residential buildings of any nature up to three stories which include the following:

1 - Low Cost Housing, 2 - Houseboats, 3 - Schools, 4 - Service Stores, 5 - Canteens, 6 - Laboratories, 7 - Libraries, 8 - Hospitals, 9 - Animal Housing, 10 - Local Air Ports, 11 - Motels, 12 - Camps, 13 - Warehouses, 14 - Drive - Ins, 15 - Restaurants, 16 - Offices, 17 - Sauna Baths, 18 - Golf Course Clubhouses, including any sport clubs, 19 - Service Stations (of any kind). 20 - Units Suitable for any Franchise Organization.

ETC.

ETC.

ETC.

ALL OF THE ABOVE ARE ALL MOBILE OR NOT MOBILE.

All specifications and plans meet with its individual building codes of any State, City or Township.

CAPACITY - (a) 40 Homes per week (or more, depending on capital availability).

(b) Our prices and quality and fast delivery compete with any manufacturer or builder in the country.

(c) Potential is unlimited with any local or State or Federal or with foreign governments, such as, Indo-China, South America, etc.

(d) We have an international union agreement so far as labor is concerned.

(e) We have large orders on hand.

(f) We also have a terrific land and real estate deal in connection with our plant, which, by itself, is worth while to discuss it with your company.

(g) We have another important company of different business which is quite interested in joining forces with us providing conditions are reasonable.

Obviously a personal discussion is most important - a discussion that offers a valuable opportunity to exchange pertinent and confidential information.

We assure you prompt action on our part in every direction and look forward to hearing from you at your convenience at an early date, providing negotiations could lead to an equitable and reasonable "Live and Let Live" basis to the direction of merging or of any suitable combination.

Sincerely yours,


STANLEY S. OESTREICHER

SSO:VH

digital

September 10, 1969

Mr. Bela Csonth
Blanegggar Strasse
26/7 Pasing
Munich 8, West Germany

Dear Bela:

I will answer your letter to Ken. Under the circumstances, I don't believe he can be expected to involve himself in the history of this matter, except to satisfy himself that his managers are making sound evaluations and acting with good judgement.

I have attached a copy of my memo to you, December 5, 1968. The points expressed in it are to the point and help put your position in perspective.

As to the matter of the stock option, I will accept responsibility for this apparent contradiction. Since the first three or four months after my letter seemed to indicate that you had responded to my last paragraph, and since it appeared that the difficult behavior you had been exhibiting during the period you were pressing for the German management and prior to your change of positions now seemed to be going away in favor of a more relaxed and cooperative attitude, I was particularly pleased and personally recommended that you be granted this option. Jean-Claude agreed, and he also did believe you were playing a healthy team role and succeeding in your sales assignment.

Since then, it has been the considered opinion of Jean-Claude, Helmuth, and Ed Jaferian, plus comments from many others in the organization that:

1. You were not effectively doing your sales work, both in technical presentations and in your handling of customers.
2. You were having serious problems in working with other members of the Munich office, particularly in your direct sales work.

Mr. Bela Csonth

-2-

September 10, 1969

I'm sorry that you have had these difficulties. I feel that we all were, as I said in my letter, committed to helping you succeed if you would make an overall positive contribution to our efforts.

Please accept this decision gracefully. I am not interested in your recriminations against the abilities of your supervisors (wasn't this where we were a year ago?). I remain convinced that, had you been able to relax and earn your success and respect with your teammates, you would have succeeded within DEC.

Personally, I wish you success in the future and sincerely hope you will turn your energies in sound directions.

Sincerely,

Theodore G. Johnson
Vice President, Sales

TGJ:mr

Enclosure

bcc: Mr. Kenneth Olsen
Mr. Jean-Claude Peterschmitt

DATE: December 5, 1968

SUBJECT:

TO: Bela Csonth

FROM: Ted Johnson

Dear Bela:

Thank you for your memo of November 22, 1968. I have been in touch with Jean-Claude over the recent period.

It should be clear that:

1. We do recognize and appreciate your sales efforts and results.
2. The decision was made on the basis of the management aspect of your responsibilities. I believe it is fair to say that Jean-Claude made this decision after more discussion than you suggest in your memo.
3. On your visit here, I tried to express my concern about your management and manageability, while recognizing your achievements.
4. It is basically a matter for Jean-Claude to decide, but I suggest that we would very much like to have you continue with DEC if you can become more sensitive to inputs on your relationships and can work smoothly as part of the team. Under the pressures of building an organization, it is necessary that all professional staff members play a team role. We are committed to offering opportunities and growth to producers who made an overall positive contribution to our efforts.

I understand that you have decided to accept a sales specialist responsibility (PDP-10). Please throw yourself into this new position with your usual drive, give the new manager your calm support, and let's have a fresh start.

Best wishes,

mr

bcc: Jean-Claude Peterschmitt
Ken Olsen

digital

September 9, 1969

Mr. Harvey S. Kupferman
Laidlaw and Company
25 Broad Street
New York, New York 10004

Dear Mr. Kupferman:

In reference to your letter of September 2 to Mr. Olsen, Digital Equipment Corporation is in a period of registration and, therefore, we will not be able to set up a visit for you on the dates you suggest.

I will be pleased to invite you here after our period of registration (toward the end of this month). Because of his very busy schedule, Mr. Olsen normally only meets with analysts at special briefings twice a year. However, I certainly will inform him of your interest in meeting him.

Very truly yours,


Mark Nigberg
Manager
Corporate Public Relations

MN:jh

cc: Ken Olsen

TELEX Nos. 222868
620270

CABLE ADDRESS
"LAIDLAW"

TELEPHONE
212 344-3900



LAIDLAW & Co.
ESTABLISHED 1842

25 BROAD STREET, NEW YORK, N.Y. 10004

MEMBERS NEW YORK STOCK EXCHANGE AND OTHER LEADING EXCHANGES

September 2, 1969

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

Dear Mr. Olsen:

I am a security analyst with Laidlaw & Co., members of the New York Stock Exchange. I should very much like to visit with you to discuss DEC's current and future activities, and wonder if Monday, Sept. 15, or Tuesday, Sept. 16 would be convenient.

Looking forward to hearing from you, I am

Sincerely yours,

A handwritten signature in cursive script, reading "Harvey S. Kupferman". The signature is written in dark ink and is positioned above the typed name.

Harvey S. Kupferman

HSK:ch

September 2, 1969

C
O
P
Y

Mr. Lionel A. Winston
President
Comtel Communications Corporation
572 Madison Avenue
New York, New York 10022

Dear Mr. Winston:

Thank you for your letter of August 7th addressed to our President, Mr. Olsen. We have considered your offering, but, in view of our current situation, can see no reason for altering our present telephone expansion plans.

Work is underway to expand our present system to a 1600-station, 4-position switchboard. As we understand the new tariff, subscribing to your system would mean every station would require a separate New England Telephone Company dial in order to dial out of the plant, at the rate of \$2.00 per dial per month. The alternative is a manual switchboard operation whereby our operators would have to place all outside calls, but this is not desirable. Further, we require three full-time telephone installers and PBX men. Service "virtually on demand" would not meet our requirements.

In the event we have overlooked some aspect of the situation, or have misinterpreted the new tariff, please advise me. Your interest in Digital is appreciated.

Sincerely yours,

Nicholas D. LoRusso
Office Services Manager

NDL:bn

digital

September 2, 1969

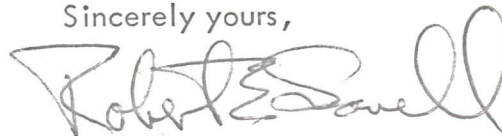
Mr. Jerome I. Elkind
Senior Vice President
Bolt Beranek and Newman, Inc.
50 Moulton Street
Cambridge, Massachusetts 02138

Dear Jerry:

Ken Olsen has asked me to answer your letter to him of August 28 concerning the reliability of your PDP-10 time sharing system. I will be away the rest of this week and the first part of next week, but to start the ball rolling I have asked Peter Burton, a member of our PDP-10 marketing staff who is charged with the responsibility for looking into customer problems of this type, and Leo Shpiz, Regional software specialist, to prepare a detailed report on the number and nature of your crashes so that we may determine what steps should be taken to solve the problem. That report should be ready by the time I return.

We are working continually to improve the reliability of our system, so we are most interested to determine the nature of the crashes and to decide upon a plan for solving the problems that exist.

Sincerely yours,



Robert E. Savell
Product Line Manager, PDP-10

RES/bwf

cc: K. Olsen
W. Hindle
P. Burton
L. Shpiz

BOLT BERANEK AND NEWMAN INC
CONSULTING DEVELOPMENT RESEARCH

50 MOULTON STREET
CAMBRIDGE, MASS. 02138
TELEPHONE (617) 491-1850

*9/2 Copy to Win Hindle
Bob Swell*

August 28, 1969

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

Dear Ken:

We have become very concerned about the reliability of our PDP-10 time sharing systems which are being used both for commercial and research purposes. Our systems have been averaging one or two crashes per day, generally half of these are non-recoverable. The integrity of our disc file information is being destroyed on the average of once every two weeks. We understand from talking with other PDP-10 installations that our experience with PDP-10 system reliability is, if anything, somewhat better than most. In short, the reliability of the PDP-10 time sharing system is not good.

I am sure that you appreciate the damage that poor reliability does to a commercial time sharing bureau. It is somewhat more tolerable in a research installation, but even there, it is a source of great inconvenience and expense. Clearly, a reputation of poor or marginal reliability is not in the best interest of DEC and certainly does not enhance sales of future DEC systems. From my past experience in dealing with you and your company, I am certain that you would like to see a problem of this importance resolved.

In puzzling over the reliability problems that we and others have had, we have been struck by the fact that the PDP-10 systems at Maynard are reputed to have much higher reliability than your customers' systems. We understand that you are experiencing crash rates more like one or two per week as contrasted with the one or two per day that we and others in our position are experiencing. This suggests that your systems group in Maynard builds and perhaps operates your systems in a manner different from that employed by your customers, and that some information, folklore, or techniques relevant to the building and loading of the time sharing software is either not getting to the field or is being misunderstood by people in the field.

Mr. Kenneth H. Olsen
28 August 1969
Page Two

I do not know that this is indeed the cause of the problems that have been experienced by your customers, but it would seem worthwhile to discover if this is the cause of the difficulty. Probably the only way to identify what is wrong is to have an appropriate qualified person from your programming group come to a customer's site for a period of about two to four weeks, have him do a careful evaluation, and hopefully correct the situation.

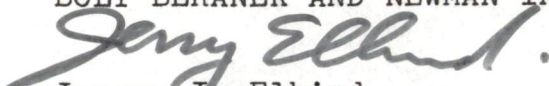
We would be willing to participate in such an endeavor, and in fact, would welcome the opportunity to be able to contribute in improving the performance of PDP-10 systems. I take the liberty of suggesting that Bob Clements would be the appropriate person for you to send to BBN for this purpose. He knows our systems programming group very well, has worked with them over a period of time, and has gained their respect and vice versa. I think he would do an excellent job of identifying and correcting the problems.

We would be willing to cooperate with you in this effort to the fullest extent that is possible. We can provide Clements, or some other mutually satisfactory person, with full access to a PDP-10 system for all hours except Monday through Friday, 7:00am through 7:00pm. We will make available our most qualified systems programming and support personnel to assist Clements. In addition, we will be happy to make available to DEC some of the special systems level programs that we have written to evaluate and reconstruct the structure of the disc files, to service teletypes and other terminals, and to service Bryant drum and disc files. We will of course cooperate with and encourage you to make available to your other PDP-10 customers the improvements made to the DEC provided PDP-10 software by our two groups working in concert.

We are most anxious to achieve a reliable efficient PDP-10 operating system. It seems to me that your interests should coincide with ours in this respect and that you should welcome a joint endeavor of the type I have described or something similar to it. I hope that this is the case, and I look forward to an early reply from you.

Sincerely yours,

BOLT BERANEK AND NEWMAN INC.


Jerome I. Elkind
Senior Vice President

JIE:sh
cc: T.R. Strollo, D.G. Bobrow

Kenneth H. Olsen
 Letters Sent, September, 1969

TO:	FROM:	RE:	DATE:
Jerome I. Elkind Bolt Beranek and Newman, Inc.	Robert Savell	reliability of PDP-10 time sharing system	9/2/69
Lionel A. Winston Comtel Communications Corp.	Nick LoRusso	see no need to alter present telephone system.	9/2/69
Bela Csonth Blanegggar Strasse	Ted Johnson	discussion of responsibilities	9/10/69
Stanley S. Oestreicher	Ken Olsen	"no" to merger	9/10/69
Arthur H. Rogoff Robert S. Taplinger Assoc., Inc.	Ken Olsen	" "	9/10/69
T. R. Anthony Malcolm North America Trust Co.	Ken Olsen	" "	9/10/69
Dr. Chang Jin Aye Nantat Company	Juergen Schroeder	business arrangement for marketing our products in South East Asia.	9/11/69
R. R. Cassir The Escort Company	Juergen Schroeder	business arrangement for the marketing our products in Middle East.	9/11/69
Carlos Alberto Novis Botelho Prodata	Juergen Schroeder	business arrangement for the marketing our products in Brazil.	9/11/69
Samuel R. Maloof, Ph.D. Memorionics, Inc.	Ken Olsen	plated wire memories	9/12/69
J. S. Samuels Machinery, Inc.	Dan Sullivan	surplus equipment	9/16/69
Paul A. Callender Advanced Computer Techniques Corp.	George Arnold	answer to request for programming manuals	9/24/69
Alton B. Avery Avery & Maynard Realtors	Ken Olsen	sorry for unpleasant experience with DEC employees	9/25/69

OCTOBER

DIGITAL EQUIPMENT CORPORATION

MAYNARD, MASSACHUSETTS

KENNETH H. OLSEN
PRESIDENT

October 30, 1969

Mr. Donald Cook
President
American Electric Power Company
Two Broadway
New York, New York

Dear Mr. Cook:

I want to thank you for taking time to visit with me yesterday;
I enjoyed seeing your desktop light meter.

Under separate cover, I am sending two sets of our literature, as
you requested, to give to some of your technical people. When they
want information, I would like to speak with them. My office telephone
number is: area code 617 - 369-5055; or, if they would like to call our
Regional Manager, his name is Dave Denniston, the office address is:
Route 1, Princeton, New Jersey 08540, and the telephone number is:
609 - 452-9150.

Sincerely yours,



Kenneth H. Olsen

KHO:ecc

hcc: Dave Denniston

DATE: October 21, 1969

SUBJECT: CONRAC'S ALPHANUMERIC CONSOLES

TO: Ken Olsen

FROM: Bob Savell

cc: Win Hindle

You asked me to let you know prior to October 24 why we cancelled the alphanumeric consoles. Mr. Putnam wanted to know if Conrac marketed them wrong or if they did something wrong technically.

The primary problems have been technical, but the overall terminal market has also changed, as described below. What follows are the same reasons that were passed on to the Conrac salesman, John Chislett, by Lon Beaupre (Purchasing Department) and Fred Wilhelm.

As I said, the decision to discontinue the Conrac display terminal was based upon one primary reason. The development of the terminal fell five months behind the original schedule for the project. In addition, there has been considerable market change during this extended development period in the display terminals market which, in our opinion, has resulted in the Conrac unit losing its competitive edge.

In regard to the development schedule, they agreed that the prototype unit was to be delivered on May 1, 1969. A unit was delivered on May 23, 1969, which was fairly close to schedule; however, there were a number of problems with the unit in the following areas; which, in total, caused the unit not to meet the specifications:

1. A number of electronic design bugs, including difficulty with the hard-copy option.
2. Keyboard functioned improperly.
3. Flimsy cabinet construction.
4. Unit contained breadboard circuits.

The prototype unit was returned to Conrac during the second week of June, together with our objections. The second prototype was delivered on July 24, 1969. Most of the previous keyboard and electronic design bugs had been fixed, but there were new problems in both areas. A design engineer from Conrac visited the plant during the last week of July to fix the logic problems with the unit, but it was not until August 22, 1969, that all of the logic problems, with the exception of the hard-copy option, were fixed. The unit was still in breadboard stage, and it was agreed that a new keyboard was required.

The prototype unit was shipped back to Conrac again to have the breadboard circuits replaced by printed circuit cards. The new keyboard was also to be installed. This unit was to be returned

October 21, 1969

to us on October 15, 1969. If the unit was received on this date, it would have taken over five months to progress from a breadboard version to a true prototype with printed circuit boards and an acceptable keyboard. Pilot production delivery originally scheduled for September 1, 1969, was rescheduled to January 1, 1970, which is 4 1/2 months late, if further delays were not encountered.

During this period, terms and conditions of purchase of competitive equipment in the market became available to us, which, in some areas, significantly cast doubt on the competitiveness of Conrac. We are not, however, committing to any other vendor at this time. We are reevaluating the market and suppliers.

In summary, slippage of the Conrac development schedule due to not meeting specifications, has already resulted in a five-month slippage. Further delay, and additional problems, could have resulted.

We have offered to negotiate a reasonable settlement price for the delivery of their prototype in a workable condition.

Bob Savell

bwf

digital

INTEROFFICE MEMORANDUM

DATE: October 21, 1969

SUBJECT: CONRAC's Alphanumeric Consoles

TO: Ken Olsen

FROM: Bob Savell

cc: Win Hindle

You asked me to let you know prior to October 24 why we cancelled the alphanumeric consoles. Mr. Putnam wanted to know if CONRAC marketed them wrong or if they did something wrong technically.

The primary problems have been technical, but the overall terminal market has also changed as described below. What follows are the same reasons that were passed on to the CONRAC salesman, John Chislett, by Lon Beaupre in Purchasing and by Fred Wilhelm.

as I said,
The decision to discontinue the CONRAC display terminal was based upon ~~two~~ ^{one} primary reasons.
First, The development of the terminal fell five months behind the original schedule for the project.
Second, there has been considerable market change during this extended development period in the display terminals market which has resulted in the CONRAC unit losing its competitive edge.

In regard to ^{the} development schedule, ^{we agreed that} the prototype unit was ~~due~~ to be delivered on May 1, 1969. A unit was delivered on May 23, 1969, which was fairly close to schedule. However, there were a number of problems with the unit in the following areas, *which in toto caused the unit not to meet the specifications.*

1. A number of electronic design bugs including difficulty with the hard copy option.
2. Keyboard functioned improperly.
3. Flimsy cabinet construction.
4. Unit contained breadboard circuits.

The prototype unit was returned to CONRAC during the second week of June. ^{together with our objections} The second prototype was delivered on July 24, 1969. Most of the previous keyboard and electronic design bugs had been fixed but there were new problems in both areas. A design engineer from CONRAC visited the plant during the last week of July to fix the logic problems with the unit, but it was not until August 22, 1969, that all of the logic problems, with the exception of the hard copy option, were fixed. The unit was still in breadboard stage and it was agreed that a new keyboard was required.

The prototype unit was shipped back to CONRAC again to have the breadboard circuits replaced by printed circuit cards. The new keyboard was also to be installed. This unit was to be returned to us.

on October 15, 1969. If the unit was received on this date, it would have taken over 5 months to progress from a breadboard version to a true prototype with printed circuit boards and an acceptable keyboard. Pilot production delivery originally scheduled for September 1, 1969, was rescheduled to January 1, 1970, which is 4 1/2 months late, if further delays were not encountered.

out (During this period, prices for similar displays dropped significantly and features have been improved. For example, one manufacturer offers an "OFF-THE-SHELF" unit which we could purchase for immediate delivery for approximately a 25 percent lower purchase cost with the capability of displaying twice as many lines of text as the CONRAC. The competitive vendor is starting delivery shortly and appeared to be much further along in development than CONRAC.) We are not, however, committing to any other vendor at this time. We are re-evaluating the market and suppliers.

In summary, slippage of the CONRAC development schedule ^{and problems} has already resulted in ^{due to not meeting "spec"} a five month slippage. Further delay could have resulted. ~~During this delay development cycle, the competitive market has changed drastically making the market value/cost ratio of the CONRAC terminal drop to the extent that it would be difficult to market profitably.~~

It is not completely clear that by missing their delivery commitments on the prototype that CONRAC is in default of the contract, however, it is absolutely clear that delivery commitments were made and missed as outlined above.

We have ~~also~~ offered to negotiate a reasonable settlement price for ^{their} the delivery of ~~the~~ prototype in a workable condition.

bwf

During this period, terms and conditions of purchase of competitive equipment in the market became available to us, on which in ~~many~~ some areas significantly cast doubt on the competitiveness of CONRAC.

digital

October 28, 1969

Dr. Arthur T. Ward, Jr.
Eleven East Chase Street
Baltimore, Maryland

Dear Dr. Ward:

From time to time Digital Equipment Corporation does have used computers which sell for between \$4,500. and \$5,500. The price varies, with about 95% of the computers selling for \$5,250., including a 45 day warranty and an ASR-33 teleprinter. This is indeed a very useful and educational tool. The FOCAL Language is very much like FORTRAN and certainly better than BASIC, a competitive language.

Many of these computers have been sold to High Schools, Junior Colleges and Colleges.

I would be very happy to talk with you and discuss the matter further. I can be reached at (617)897-5111, Extension 2787.

Best regards,

R L Lane

R. L. Lane

el

10/24. Bob Love to answer

SARATOGA 5786

ARTHUR THOMAS WARD, JR., M.D.
ELEVEN EAST CHASE STREET
BALTIMORE 2, MD.

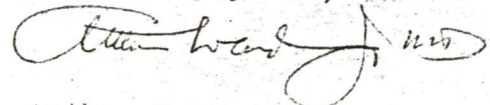
October 21, 1969

President
Digital Equipment Company
Maynard, Massachusetts

Dear Sir:

I understand that you are the foremost manufacture of mini-computers. I have a son who is a sophomore in college, who is extremely interested in computers; and I would like to know if you have an old, used, or traded in mini-computer which still operates, since I would like to give him one as a gift if the price is within reason. Please let me know the availability and lowest possible cost.

Very truly yours,



Arthur T. Ward, Jr., M.D.

ATW/pl

DIGITAL EQUIPMENT CORPORATION

MAYNARD, MASSACHUSETTS

KENNETH H. OLSEN
PRESIDENT

October 21, 1969

Mr. C. H. Springer
MFB Mutual Insurance Company
2650 Graybar Building
420 Lexington Avenue
New York, New York 10017

Dear Mr. Springer:

Thank you for your pleasant comments on my talk to the MIT alumnae group two weeks ago.

I collected notes for the talk for several days, but didn't get inspired to assemble them until that morning, so I'm afraid I don't have anything written down that I can mail to you.

Sincerely yours,



Kenneth H. Olsen

KHO:ecc

MFB Mutual Insurance Company

The First Factory Mutual Company - Incorporated 1835

FACTORY
MUTUAL
INSURANCE

EXECUTIVE OFFICES, PROVIDENCE, RHODE ISLAND

2650 Graybar Bldg., 420 Lexington Ave. · New York, N.Y. 10017 · Tel: (212) 686-1440
Telex: 12-6170



October 7, 1969

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

Dear Ken:

My Institute "spies" advise that you gave the assembled "young grads" a most inspiring keynote address during this past weekend's seminar.

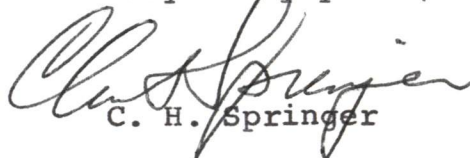
I am rather intrigued by what I have heard and would greatly appreciate your forwarding, if available, a copy of your speech.

Continuing in a personal vein (despite the business stationery) would you, at the time of your next Board meeting, please convey my best wishes to Vern Alden.

Vern's an old, old friend for we were associates (or should I say undergraduates) at Classical High School in Providence in the early 1940's.

Again, congratulations on your weekend dissertation.

Very truly yours,


C. H. Springer

CHS/el

DIGITAL EQUIPMENT CORPORATION

MAYNARD, MASSACHUSETTS

KENNETH H. OLSEN
PRESIDENT

October 21, 1969

Mr. Douglas Hopkins
478 1/2 Marine Street
La Jolla, California 92037

Dear Douglas:

It was good to hear from you and to learn of your ideas.

The two subjects you brought up have had a lot of interest in the last decade. There is much going on in computerizing medical testing so that less screening of the big part of the population will be practical. As you point out, economics are the important problems in each of these areas.

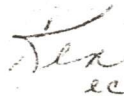
Many years ago, I saw at Mass General Hospital an ectocized cat with wires into his exposed brain. He was looking at a cathode ray tube, and the brain waves were tied to the computer. The computer scanned the full cathode ray tube and recorded what parts the cat saw. This, of course, can be done with human patients without opening up the head, and I'm sure it has been explored in detail, but it's probably still too expensive for normal testing. I once went through a computerated screening system, but have forgotten how they did it. I do know that many people have invested heavily in just this problem, however.

Your interest in computer-generated music is also one which has created much interest. Most people generate sounds by adding square waves right from the flip-flops of a computer, and have produced quite good music. We play four-part Bach on our PDP-10. Tying a computer to a synthesizer would open new possibilities.

If you become interested in electronic music in detail, you might study what has been learned from literature on electronic organs. It seems to me that, in about 1952, IRE Proceedings had a very detailed article on electronic music, and I'm sure they have had a lot since then.

Say hello to your father for me, and do keep up your interest.

Sincerely yours,



Kenneth H. Olsen

KHO:ecc

16 October 1969

Mr. Ken Oleson
Digital Electronics
Maynard, Massachusetts

RECEIVED

OCT 20 1969

Dear Mr. Oleson,

KENNETH H. OLSEN

Although you probably do not remember me, I think you know my Father, Cleveland Hopkins. I have been living in California for the last four years, going to school and working as a free-lance photographer.

I have two ideas related to computers and would like your opinion on certain aspects.

1. As the result of a serious eye injury I learned that methods for optical testing are very crude. For example, it was four months after my first operation (due to a laceration) before the doctor found I had blind spots on my retina from an unknown cause.

I propose a machine which would originate a battery of computer driven optical tests. One would be a pin-point of light which would be driven over the entire hemisphere of the eye's vision; the subject would punch a button when he could not see it; a mechanical version of this is already in use--is not too accurate. Another test would be an illuminated chart, or other figures; the subject would respond by drawing his version on one of those screens from which the computer records drawn information. And so forth. It would also have a large bank of information on known optical principles related to each test (e.g., astigmatism in the second test) and would produce finally an accurate picture of how the eye had processed the test information given it. As far as I have been able to ~~find~~ ^{from the library} (very casually) no such research is being done. It is not my field, perhaps if it is feasible, you could propose the idea to one of your customers.

2. This idea is relatively complete: I am looking for a means of carrying it out.

I am in the process of buying a machine, built in England, known as a synthesizer. If you are not familiar with it, it produces a wide range of musical (and nonmusical) sounds, it can produce any musical instrument's sound and goes through the entire range of human hearing. It is composed of a variety of oscillators, white noise generators, reverberation units, all interconnectable, and all voltage controlled. It is built with interfacing (?) to connect it to a computer.

This proposal comes under the heading of "grant to the arts"; although with a twist to give more than aesthetic results alone. Is there some way a small computer, sufficient to drive the synthesizer, could be made available for experimentation, with the goal of producing some very original, and hopefully, pleasurable music? As a by-product, I could do some creative photography and copy with the set-up for your company, which would produce unequalled advertising.

Too presumtuous? I am unfamiliar with computer economics; although I do know they are expensive and unavailable to me around here.

I work in the Psychology Department at University of California, San Diego and we recently bought two of your machines; there were several difficulties at first, but everyone is quite pleased with them now.

I know you must be very busy, so thank you for any consideration you do give this.

Sincerely yours,

Douglas Hopkins

Douglas Hopkins

478 1/2 Marine Street

La Jolla, California 92037

October 17, 1969

Mrs. Jane Livingston
Los Angeles County Museum of Art
5905 Wilshire Boulevard
Los Angeles, California 90026

Dear Mrs. Livingston:

Subsequent to our phone conversation last week, I have again reviewed the equipment requirements for a computer system at Expo '70 in Osaka. My current understanding is that a complete PDP-9 system with CRT display is required from DEC. I'm sorry to report that this isn't possible.

The negative decision is dictated by the cost of the required equipment, the extended duration that it would be needed, and its obsolete status one year from now. DEC will not be able to participate.

We appreciate your offering this opportunity to the company. It is regrettable that the timing of the situation does not permit us to respond favorably.

Very truly yours,

John Allen Jones

JAJ/njb

cc: A. L. Fenaughty, President, III
K. H. Olsen, President, DEC

September 11, 1969

Mr. Maurice Tuchman
Senior Curator
Los Angeles County Museum of Art
5905 Wilshire Boulevard
Los Angeles, California 90026

Dear Mr. Tuchman:

Please excuse my delay in answering your letter of August 7 (to Mr. Olsen) in regard to the loan of a computer at Expo'70 at Osaka. The summer seems to be a difficult time to get answers.

In principle, we would be very pleased to provide a basic PDP-9/L for this effort. There are, however, some problems of timing and configuration. I would like a better idea of the dates that the system would be required, and the exact minimum configuration that is acceptable to Information International, so that no conversion of hardware or software is required.

I will be out of town until September 22. If you have questions after that, please don't hesitate to call me.

Very truly yours,

John Allen Jones

JAJ/njb

Carole Gallant to have someone answer

LOS ANGELES COUNTY MUSEUM OF ART

5905 Wilshire Boulevard, Los Angeles, California 90036 Telephone 937-4250

August 7, 1969

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

Dear Mr. Olsen,

I am writing in connection with a project now underway at the Museum called "Art and Technology". The enclosed material will give you some idea of the basic nature of the program, so I won't go into great detail about it here.

The aspect of "Art and Technology" which concerns D.E.C. has to do with our participation in Expo '70 at Osaka. Seven or eight works by American artists resulting from artist/corporation collaborations will comprise the New Arts section of the United States Pavilion. One of the projects which we are counting on sending to Japan is a series of computer-generated poems composed by poet Jackson MacLow here in Los Angeles at Information International. The programs in question operate on a basic PDP 9, with a Triple-I display console. Information International has indicated its willingness to lend the display console now in use by Mr. MacLow to Osaka for the duration of the World's Fair - which opens March 15, 1970 and runs for six months - but they are unable to provide the computer itself. They feel that the program could operate on a 9, 9L, 15 or 8 or 8 I computer. Information International would convert the programs to paper tapes - they would simply require a paper tape reader. If D.E.C. could provide one of these computer models to be used temporarily at the World's Fair, you would of course be given full credit and the public relations benefits of extraordinary exposure to your equipment by its presence at Osaka. (8,000,000 visitors are expected to tour the United States Pavilion.)

The matter of maintenance for the equipment while it is at Osaka might be most easily resolved if D.E.C. has a subsidiary or sales office in

Mr. Kenneth H. Olsen, President

Page 2

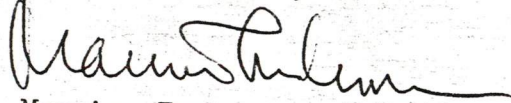
August 7, 1969

Japan; otherwise we may be able to arrange for maintenance personnel from the United States to be in Japan specifically for that purpose. The Museum, in conjunction with the U.S.I.A., will be handling the transportation and installation for the entire exhibition.

I am sure you will need to give thought to this request before making a commitment to us, and you will undoubtedly want more information about the project in general. Please feel free to telephone me collect at the Museum to discuss this - it might be useful, too, for you to speak directly with Alfred Fenaughty of Information International. In any event, I shall be most appreciative if you will contact me by phone or letter as soon as possible so we may begin to work toward an agreement.

May I thank you in advance for your kind consideration of this request. I look forward to hearing from you soon.

Very truly yours,



Maurice Tuchman
Senior Curator
Modern Art

MT:fh

CC: Alfred L. Fenaughty, President
Information International



October 17, 1969

Mr. Charles Missler
President
The Cyphernetics Corporation
333 Maple Village Center
Ann Arbor, Michigan 48103

Dear Chuck:

I have been asked by Ken Olsen to investigate the problems mentioned in your letter of October 6th and to respond directly to you as to their resolution.

After extensive discussions with both our sales and field service organizations, I think the following comments are in order:

1. Of course, we must acknowledge the problems in delivery of both the RD10 swapping disks and the disk pack systems. As you know, both problems were caused by extreme slippages in deliveries to us by our vendors. The former problem has been alleviated by the establishment of a second source, and we have finally met our commitments to you. The delays in disk pack deliveries to us seriously affected our development schedule, necessitating slippages in our scheduled deliveries to customers. We have now finally completed our development effort, and, through the cooperation of our vendor, expect to be able to supply sufficient quantities of RP02's. At this time, we have an extremely high expectation of meeting the new delivery schedule given to you recently, with RP10 controls and RP01's shipping in January, 1970, and RP02's arriving in March.
2. It is my understanding that all parties are in agreement that the warranty on all equipment of system #1 that was accepted on August 19, 1969,

will begin on that date and will end on November 17, 1969. I hope this is your understanding on this matter also.

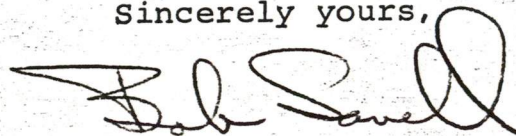
3. System #2, except for the disk pack subsystems, is rapidly approaching final in-plant acceptance. We would like to ship it to you on schedule, install and accept it, and commence the warranty period as soon as possible. We are certain that this system will provide useful backup to your system #1 and will further provide the opportunity for you to check out future hardware and software developments.
4. Although our interpretation of the initial sales agreement suggests that the period of effectiveness of the quantity discount agreement should commence with the shipment of the second RD10, we are willing to compromise and allow the one-year period to begin with the acceptance of system #1 (on August 19, 1969). However, we cannot extend the end of this period beyond August 18, 1970, without incurring serious complications that we are not prepared to assume.
5. Although much might be said by both sides concerning the problems in arriving at a satisfactory field service agreement, I feel that nothing would be gained by reopening this discussion. It is my understanding that we have agreed upon a mutually-acceptable contract, and in the course of these negotiations we have learned many valuable lessons. I promise that we will work to insure that such protracted and complicated negotiations are avoided in the future.
6. It is most apparent to me that many of our past problems and misunderstandings could have been avoided or alleviated by the proper use of the account salesman who is responsible for servicing your account. I feel strongly that all of us -- PDP-10 Marketing, Engineering, Field Service, and even our Regional Headquarters -- are equally guilty of this offense, and with so many groups within our company having an interest and concern with the problems of your account, it is no wonder that misunderstandings could arise. It is

precisely because of this type of problem that we have created the role of account salesman and charged him with full responsibility for customer satisfaction. In bypassing him, we can only encounter problems, since we no longer have the situation where one person knows all of the problems of the customer and commitments made to him. I have pledged to support Ron Ginger in his role as your account salesman and expect all other groups within DIGITAL to do likewise. If you and your organization will cooperate, I am certain that we will not again experience the types of problems that have plagued our relationship in the past.

Although I think this covers all of the points raised in your letter, I have asked Gerry Moore, our Midwestern Regional Manager, and Dave Cotton to accompany Ron Ginger to your offices at your earliest convenience to further discuss your letter and any still-unresolved problems. To this end, Ron Ginger will be in touch with you shortly in hopes of arranging an early meeting.

Let me close by expressing my sincere concern over our past problems and my best wishes for the success of your organization. I have a high degree of respect for the staff you have assembled and am certain that you will be one of our best and most successful customers.

Sincerely yours,



Robert E. Savell

PDP-10 Product Line Manager

RES:11

cc: Ken Olsen ✓
Gerry Moore
Dave Cotton
Ron Ginger

DIGITAL EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

KENNETH H. OLSEN
PRESIDENT

October 17, 1969

Mr. Charles Missler
President
The Cyphernetics Corporation
333 Maple Village Center
Ann Arbor, Michigan 48103

Dear Mr. Missler:

I have received your letter of October 6th, and was indeed sorry to hear of the problems you have experienced.

I have asked the PDP-10 Product Line to discuss these problems with our field sales and service organizations, and to try to quickly arrive at equitable solutions to them. You may expect to hear from Bob Savell as soon as he has had the opportunity to investigate the circumstances mentioned in your letter.

Digital is firmly committed to the support of our customers, and we look forward to the successful establishment of your business.

Sincerely yours,

Kenneth H. Olsen

KHO:ecc

cc: Mr. Robert E. Savell
bcc: Gerry Moore
Ron Ginger
Dave Cotton
Jack Shields
Cliff Clarke
Gil Slaw
Peter Burton
Don Busiek
John Ganick
Pete Cerreta

18-9
Win Hinkle to answer

The Cyphernetics Corporation

October 6, 1969

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

Dear Ken:

I am writing you at this time because of the growing concern I feel about a series of delays and other problems with Digital Equipment Corporation which are seriously adversely affecting the probable future success of The Cyphernetics Corporation. I wish to be certain that you are aware of several of the problems which are of particular importance and concern to me.

I believe that you are aware of the considerable difficulties we encountered in obtaining the RD10 swapping disks which were absolutely essential to the time-sharing operations of the company. Our order dated March 17, 1969, called for two RD10 swapping disks to be delivered with the original PDP-10 system scheduled for delivery in March, 1969. Thereafter, one additional RD10 swapping disk was to be delivered in April, one in May, two in June and two in July. Only one RD10 swapping disk had been delivered by the end of April instead of three as scheduled. New scheduled delivery dates were thereafter constantly not met. We finally received two more RD10 swapping disks late in June. Not until August did we receive the remaining five RD10 swapping disks, one of which was damaged and was not put into operation until the first week of October. The direct result of the foregoing was that the acceptance of the first PDP-10 system did not occur until August 19, 1969, and we were two months behind schedule at that point. However, the foregoing would not be critical to our present situation except as it may indicate what may be expected in similar circumstances.

A frightening similar situation to that discussed in the preceding paragraph has developed with respect to the RP02 disk drives originally scheduled for delivery in October, 1969, as part of the second PDP-10 system. We were advised approximately July 28th that delivery of the RP02 disk drives could not be made until December but that RP01 disk drives would be made available to us in October. We have now been advised that even the RP01 disk drives will not be available until January 1970, and that the RP02 disk drives will not

Mr. Kenneth Olsen, President
Digital Equipment Corporation
Page Two
October 6, 1969

be available before March 1970. In light of our experience with the RD10 swapping disks, we have no great hope that even these scheduled delivery dates will be met. The direct result of this failure to deliver on schedule is that our system will have insufficient disk storage required for our business.

As a result of the foregoing we now find ourselves in the following situations solely as a direct result of Digital Equipment Corporation's failure to deliver on schedule:

1. We are several months behind sales projections made to our investors.
2. More seriously, we are months behind in having available the services which we have promised customers and prospective customers would be available at this time.
3. Finally, we will be unable to evaluate and estimate the actual and probable growth of our business in sufficient time to order a third and fourth PDP-10 system within the apparently fixed time periods relating to our quantity discount agreements (assuming, that as discussed hereafter, other matters are resolved so that we wish to expand with DEC equipment).

The effect of each of the foregoing is serious but taken together could be catastrophic.

With respect to item 3 listed in the preceding paragraph, it was our understanding that the one year period relating to the quantity discount agreements did not begin to run until a complete PDP-10 system had been accepted by us, and that all swapping disks were to be included in such complete system. At the earliest this would have been August 19 and it was our understanding at one point that this would be the date from which the one year period would be measured. It is now our understanding that DEC's position is that the one year period will run from some time in June although I do not understand the significance of that date. Moreover, in light of the present delays being incurred with respect to delivery of the RP02 disk drives, I would respectfully suggest that some date subsequent even to September 1, 1969 be the appropriate date from which the one year period would run and would also suggest that the one year period be automatically extended after the initial date is agreed upon by an amount equal to any delay we thereafter suffer with respect to the delivery of any critical element of our equipment, e.g., the RP02's.

Mr. Kenneth Olsen, President
Digital Equipment Corporation
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October 6, 1969

The final problem which I wish to bring to your attention concerns the difficulties encountered in reaching an acceptable agreement with DEC relating to the maintenance and service of our equipment. Without in any way minimizing the seriousness of the matters discussed above, this is the most serious and pressing problem at this time. I also find it the most distressing since I have no alternative but to question seriously the good faith of the DEC personnel involved in the negotiations concerning the proposed service contract. Although I understand that the service organization is an autonomous branch of DEC, their actions reflect upon and must be charged against the reputation of DEC as an entity. Moreover, since the services they would provide are of vital importance to us, separate consideration was never given to the sales and service functions performed by DEC, i. e., I believe that you would agree that the service and maintenance functions provided by the manufacturer are an important factor considered by a prospective customer before he purchases computer equipment. In any event, our decision to purchase DEC equipment was influenced to a great extent by the representations made to us by DEC personnel concerning the service and maintenance which would be available for the equipment through DEC.

In light of the foregoing, permit me to review briefly in chronological order the sorry chain of frustrations we have encountered in our attempts to obtain a satisfactory service contract, each step of which forced us somewhat reluctantly to question more seriously than before the good faith of the service organization.

1. On or about May 28th, Roger O'Brien and Kenneth Lochner, Executive Vice President of the Cyphernetics Corporation reached tentative agreements with Gilbert Slaw of your Chicago office, with respect to a "parts only" service contract, i. e., that for an annual fee you would supply all parts required while we would perform the actual maintenance. Thereafter, at the July meeting Ken was advised that such a contract was not available.

2. On July 15 representatives of the Cyphernetics Corporation and the Digital Equipment Corporation met in Ann Arbor to discuss the maintenance agreement. The following personnel attended the meeting: Gilbert Slaw, Clifton Clarke, and Don Busick of the Digital Equipment Corporation and Earl Graves and Kenneth Lochner of the Cyphernetics Corporation. Mr. O'Brien was unable to attend due to the fact that he was enrolled in the Digital Equipment

Mr. Kenneth Olsen, President
Digital Equipment Corporation
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October 6, 1969

Corporation's PDP-10 maintenance course. At this meeting, the Cyphernetics Corporation was informed that a parts only contract was definitely not available. Furthermore, it was stated that any agreement would need to be based on the standard Digital Equipment Corporation's field service contract which was then given to Cyphernetics' personnel. The Cyphernetics Corporation representatives pointed out that to effectively maintain a time-sharing system some exceptions would have to be made to DEC's standard agreement. All of the Digital Equipment Corporation's representatives agreed that the standard contract was inadequate when the purchaser was a time-sharing utility. They then stated that they would be able to be quite flexible about such things as the hours at which the Digital Equipment Corporation's field service people would be on site, that The Cyphernetics Corporation would have to assume the responsibility for system direction, and that our personnel who had attended DEC's training schools would need to make emergency repairs to all equipment. The exact details regarding the implementation of these agreements was to be left to a subsequent meeting.

3. Late in August, a meeting was arranged which was to be in Ann Arbor and at which Ken, Gilbert Slaw, Clifton Clarke and Perry Kantner, Secretary of The Cyphernetics Corporation, and a member of Honigman Miller Schwartz and Cohn, general counsel for The Cyphernetics Corporation, were to be present. The meeting was held on September 3, 1969, but Mr. John Ganick of DEC was present in place of Mr. Clarke. We had been given reason to believe that Mr. Ganick and Mr. Slaw had authority to negotiate an agreement with us. Also present at the meeting was Mr. Roger O'Brien of The Cyphernetics Corporation, who with Ken would have primary responsibility for maintenance of the system. After a meeting lasting most of the day, agreement had been reached on all points. Only as Mr. Ganick was leaving did he advise Mr. Kantner that "of course this agreement is subject to approval by personnel in the home office." Mr. Kantner at that time expressed an opinion to Ken and I that in light of Mr. Ganick's comment the day had been wasted.

Mr. Kenneth Olsen, President
Digital Equipment Corporation
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4. Mr. Kantner's prediction became a reality in the form of Mr. Ganick's letter dated September 24, 1969. Not only did the letter negate all important points of agreement reached in the meeting on September 3, 1969, it suggested that the revised agreement as prepared by Mr. Kantner did not conform to the agreement reached on September 3, 1969. The proposed service contract certainly accurately reflected the agreements reached in the meeting on September 3, 1969, as such agreements were described to me immediately thereafter by Ken Lochner and Roger O'Brien. Moreover, part of the revised agreement, which has now been rejected by DEC, was furnished to Mr. Ganick and Mr. Slaw on September 3, 1969, in written form acceptable to them at that time.

I wish to add at this point that both Kenneth Lochner and Perry Kantner are normally rather even-tempered individuals. However, the frustration, exasperation, anger and disbelief which they have evidenced with respect to DEC's course of conduct and bad faith negotiation in this matter leave no doubt in my mind that their rather unusual reaction is completely justified.

It is my understanding that a meeting in Maynard, Massachusetts has been scheduled for Friday, October 10, 1969 at which Mr. Lochner, Mr. Kantner, Mr. Clarke and possibly others are to be present. It is my further understanding that notwithstanding all previous agreements by DEC, we may effectively be forced to begin anew negotiating the terms of a service contract. If an agreement essentially identical to that submitted to Mr. Ganick, by Mr. Kantner on September 8 cannot be signed on October 10, we must conclude that it is impossible to reach agreement with DEC on the service contract.

One other incident closely related to the problems with the service contract should be mentioned. After it became clear that the meeting on September 3, 1969 had been to no avail and that essentially all agreements reached in that meeting were not being honored by DEC, we were forced to begin to give serious consideration to doing all maintenance and service work on our equipment ourselves. Because our warranty period will expire on November 17, 1969, we will have little time in which to establish the necessary maintenance and service organization. (Incidentally, Mr. Ganick's letter seems to suggest for the first time that it may be DEC's position that our warranty protection will expire prior to November 17, 1969 even though that is 90 days from August 19, 1969, the day on which the PDP-10 system was accepted by us in accordance with the acceptance test procedures specified in our purchase order

Mr. Kenneth Olsen, President
Digital Equipment Corporation
Page Six
October 6, 1969

dated March 17, 1969). Because of the imminent (November 17) expiration of our warranty protection, we will have no alternative but to hire maintenance and service personnel presently in the employment of DEC if we are forced to do our own maintenance and service. To this end, we have already approached one such individual. When Mr. Moore of your Chicago office learned of this, he promptly "advised" Ken Lochner that should we, in fact, hire any DEC personnel, he Mr. Moore would make sure that the most inexperienced installers would be assigned to The Cyphernetics Corporation at the time the second PDP-10 system was delivered and that in general, we would find the installation of the second system to be quite unsatisfactory. As a marketing man, it surprises me that the service branch of an organization whose principal business is sales can make admittedly effective threats which, as discussed hereafter, may have the effect of completely negating the sales efforts of the organization. Rather, it would seem that to support and promote the primary function of the organization, i. e., the sale of computer systems, the service branch might occasionally have to accept something less than it considers ideal, especially when individuals of that service branch having the operative responsibility, and the apparent authority to do so, have reached agreement on several occasions with customers of the sales and product groups in accordance with representations originally made by personnel of such sales and product groups of the organization.

Ken, in light of our past associations which I believe we have found mutually satisfactory and beneficial, I find the foregoing personally very distressing and disheartening. The extremely unfortunate position in which we now find ourselves is that unless an acceptable service and maintenance agreement is promptly consummated, unless all future deliveries are made on schedule, and unless the other matters discussed herein are satisfactorily resolved, we will be forced to consider seriously the alternatives available through other suppliers of the equipment we will require with respect to the expansion of our business beyond the second PDP-10 system. Legal counsel has even suggested that in light of the matters discussed herein, we may have no obligation with respect even to the second PDP-10 system, but quite frankly, from a business standpoint we must accept such system in an attempt to keep at a minimum the irreparable damage already suffered and continually being suffered by The Cyphernetics Corporation because of the actions of DEC as described herein. As I am sure you appreciate, to expand our business beyond the second PDP-10 system with other than DEC equipment is an enormous task, involving great expenditures of time and money and loss of revenue. Accordingly, although we certainly have the technical competence

Mr. Kenneth Olsen, President
Digital Equipment Corporation
Page Seven
October 6, 1969

to expand our system with non-DEC equipment, we have no particular inclination to do so and we hope that our relationship with DEC can be re-established in a manner that will permit further expansion of our business to be with DEC equipment.

I certainly wish that it had not been necessary to write this letter to you. However, I wanted to be sure that you were aware of the situation we were facing.

Sincerely,


Charles Missler
President

CWM:pal

File in "Letters Answered"

digital

INTEROFFICE MEMORANDUM

DATE: 15 October 1969

SUBJECT:

TO: Ken Olsen

FROM: Al Beal

Thank you for forwarding Mr. Frank Denney's letter to me. I visited him on October 7 and found him to be an interesting gentleman. He is an ex Vice-President of the Purex Corporation and also of the Safeway Super Market chain. I would guess that he is between 48 and 50 years old.

He sometimes appeared to have difficulty holding his hands steady and is a chain smoker.

He is looking for a company to join (he did not say "as a vice-President", but that was the impression I got) where he would be responsible for directing a team that developed a super market automation system.

A system, Mr. Denney envisions, would store the price and inventory of up to 14,000 items. Each product would have a manufacturer supplied tag with holes punched to uniquely identify the product. This "postage stamp" sized tag would be placed in a reader at the check out stand. The computer would add twenty seven cents to the total, display "\$0.27" on a CRT or NIXIE Display, subtract one item from inventory, check if reorder level had been reached, and reorder if necessary. The average system would handle eight cash registers.

Since a system failure would likely effect all checkout stands, some form of back-up would be required.

Feasibility of his ideas seem to hinge upon cost of:

1. A reader for each check stand that would probably have 14 or 15 photo cells. It would appear that this reader would be required to sell and interface for \$100 to \$150.
2. A display per check stand. In the age of \$100 Sony's, could this be offered for \$400 to \$500?
3. A back-up system.
4. Soft-ware development

Mr. Denney thinks the system would not sell if priced over \$20,000 to \$25,000 for an eight check stand market.

Even with the dwindling cost of the small computer, fighting the cost battle seems to be overwhelming.

I told him about Jack Frazer, of Automatic Research Mechanisms and also of LRL, Livermore. Mr. Frazer is a staunch DEC user and might be interested in developing this area.

If you have any comments that you would like passed on to Mr. Denney, or if I may be of assistance in other ways, please let me know.

Sincerely,

Al 

FRANK P. DENNEY CONSULTANT / MARKETING and MANAGEMENT

P. O. BOX 5123 • SANTA BARBARA, CALIFORNIA 93103 • TELEPHONE (805) 684-3245

August 14, 1969

Mr. K. H. Olsen
President
Digital Equipment Corp.
146 Main Street
Maynard, Mass. 01754

RECEIVED

SEP 18 1969

D. E. C.
ANAHEIM BRANCH OFF.

Dear Mr. Olsen:

Not knowing where the subject of this letter belongs in your company, I am directing it to you knowing you will pass it on to the proper people.

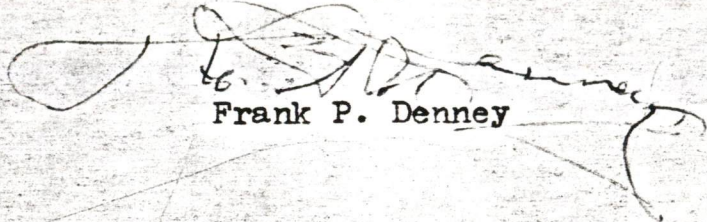
The attached memo briefly discusses a pressing problem with which the supermarket industry is faced, i.e., the need for automating checkstands. I have not tried to cover all the bases, but I trust I have given your people a "feel" of the problem.

My questions are these: (1) Is your company equipped to solve the problem? (2) If so, is it interested?

My work is far removed from your business. In a positive way, my interests, training and assignments primarily involve grocery products and the supermarket industry.

If this letter strikes a responsive chord, I will be more definitive in how we might work together.

Cordially,



Frank P. Denney

FPD:vs
ATTCH. (1)

Objective: Reduce in-store direct labor expense in the supermarket industry by automating the checkstand operation.

Background: Essentially the retail grocery business has not changed since its inception. While the industry has presented larger, more attractive and conveniently located stores, the functions performed in the store are little different than they were 50 years ago. Each year labor rates have gone up but productivity per man hour has lagged far behind. Direct in-store labor expense including fringe benefits in Southern California was \$4.20 per man hour. A new 3 year contract negotiated in June 1969 will ultimately result in a rate of \$5.00 plus.

Historically Northern California has higher rates. Lower rates exist in the Intermountain States, Texas and the Southeast. The important thing is that not withstanding the locale, the industry must find a way to get more productivity for each labor dollar or it will price itself out of the market and another, more efficient and less costly method of retailing will take its place.

Cost of Price Marking: I do not believe anyone precisely knows what this amounts to, but management does know it is staggering. The average supermarket carries between 12,000 and 14,000 items. For the most part, the function is done by hand. When you multiply the number of items by the number of packages of each item, one can begin to understand the magnitude of cost. Some "loose" estimates have been made, and for what they are worth, they vary from 70 hours to 180 hours per week. Based on \$5.00 per man hour, the annual cost of price marking is somewhere between \$18,000 and \$46,000 per store.

Assuming price marking were eliminated initially on rigid and semirigid packages, and these constituted half of the items stocked, the initial realistic saving would be between \$9,000 and \$23,000 per store per year.

Solution: One approach is having the manufacturer code each item.

In theory, here's how it would work.

The customer selects Kellogg Corn Flakes 12 oz. which retails for 29¢. The price is shown on the shelf moulding strip but not on the package. At the factory, Kellogg affixes an assigned code to the package. At the checkstand, the checker passes a "wand" over the package and the code is read. A mini-computer is activated which adds 29¢ in its "brain", and at the same time 29¢ will show on a Sony-type screen which the customer sees. Such a checkstand installation should be able to provide an itemized receipt and such other services as are now performed by a NCR cash register.

There are a number of other tangible and intangible advantages advantages to the supermarket operator. In the interest of brevity, I won't go into them here.

Opportunity: There are 200,000 supermarkets in the U. S., all of whom face the same problem. The field is wide open for a knowledgeable company to come up with a practical solution. While my comments have been confined to the supermarket industry, almost every mass market retailer faces much the same problem.

Prepared by:
Frank P. Denney
Santa Barbara, Calif.
August 13, 1969

October 15, 1969

Mr. Leo Nothmann, President
Management Recruiters
Executive Office Building, Suite 416
36 Main Street West
Rochester, New York 14614

Dear Mr. Nothmann:

Thank you for your letter of October 7, 1969. I appreciate your calling this matter to my attention as our continuing objective is to maintain the highest professional standards in our dealings with our agencies and their clients.

I have discussed the details of your letter with Mr. Henry and the concerns that you have registered. In reconstructing the sequence of events that took place, I hope we can clarify the problem.

Mr. Richard Heaton of our Purchasing Department made the initial contact with your agency during the latter part of August regarding the candidate specifications for the purchasing positions and indicated that we were tentatively planning a trip, depending upon the response, for on or about September 5th or 6th.

Immediately following this, a letter was sent to your agency on September 2nd (see attached) providing you with written specifications and advising you that Mr. Cook of our Purchasing Department and Mr. Henry would plan to be in Rochester for interviews on September 19th and 20th.

Due to the limited responses which we received, and after a review of the resumes that had arrived, we decided to cancel

Page Two
Mr. Leo Nothmann
October 15, 1969

the trip. Mr. Henry advised me that he relayed this information to you in a telephone conversation on or about September 12th and at that time no interviews had been set up. Subsequently you sent your telegram on September 25th, which Mr. Henry indicates he has to this date never received.

During this period Mr. Henry was unfortunately without a secretary, which I am sure made it difficult for some phone calls to reach him. I regret any inconvenience that this may have caused you, but please be assured that we are sensitive to your position and did indeed attempt to keep you informed.

Thank you for your interest and we look forward to a mutually beneficial relationship.

Sincerely,

Graydon A. Thayer
Manager, Professional Personnel

GAT/lw

Enc. 1

bcc: K. Olsen

September 2, 1969

Management Recruiters
36 Main Street West
Rochester, New York

Gentlemen:

Enclosed please find four job specifications which we seek to fill immediately.

Mr. Thomas Cook of the Purchasing Department and myself will be in Rochester on September 19th and 20th to personally interview applicants.

We would appreciate it if you would forward resumes of qualified individuals to the attention of John Henry at: Digital Equipment Corporation, 146 Main Street, Maynard, Massachusetts 01754. Local interviews would then be arranged through your agency.

All positions filled as a result of agency referrals will be on a company paid fee basis.

We appreciate your assistance in securing well qualified applicants and shall provide additional information regarding these positions at your request.

Sincerely,

John Henry
Professional Personnel Representative

JH:sl
Enclosures

*Julia did not see telegram
She started 9/25*

(AGENCY)

**Management
Recruiters**[®] OF ROCHESTER, INC.
The matchmakers

EXECUTIVE OFFICE BLDG. • SUITE 416 • 36 MAIN ST. WEST • ROCHESTER, N. Y. 14614 • PHONE (716) 454-2440

OFFICES IN PRINCIPAL CITIES

RECEIVED

OCT 8 - 1969

RECEIVED
H. OLSEN

October 7, 1969

Industrial Relations Director
Digital Computers
Maynard, Mass.

Dear Sir:

In the latter part of August, we received a telephone call from Mr. Dick Heaton requesting our assistance in locating four people for your purchasing department.

We were informed that Mr. John Henry would be in Rochester September 5th and 6th to interview and immediately searched our files, computer, advertised and recruited for these openings.

No less than 11 resumes were forwarded and when we received no word from Mr. Henry, we finally were able to get through to him. We then were informed the trip was postponed for two weeks.

Again, we received no word, no answer to our calls. We were finally informed that because the other agencies contacted did not respond, the trip was canceled but that Digital would contact us within a few days for contact information in order to telephone interview several of our applicants. Our final telegram sent on September 25th, was never answered.

We recognize your freedom of action. However, we are deeply upset by the fact that we not only put considerable time and money into fulfilling your needs, but have been unduly embarrassed in the eyes of our applicants, several of whom we recruited, by our inability to as much as have our phone calls answered so that we could properly respond to their queries.

We could be in a position to be of assistance in helping fill your manpower needs. We have a computer hook-up with over 100 offices throughout the country, as well as being specialists in recruiting. This, I might add, is done not on a retainer, but strictly a performance basis.

(AGENCY)

**Management
Recruiters[®]** OF ROCHESTER, INC.
The matchmakers

EXECUTIVE OFFICE BLDG. • SUITE 416 • 36 MAIN ST. WEST • ROCHESTER, N. Y. 14614 • PHONE (716) 454-2440

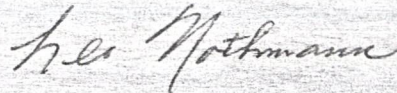
OFFICES IN PRINCIPAL CITIES

-2-

I do not know if you are aware of the unbusinesslike manner in which your company is operating. It is in the hope that it will be of benefit to you, that prompts this letter.

Sincerely,

MANAGEMENT RECRUITERS OF ROCHESTER



Leo Nothmann
President

In-g

DIGITAL EQUIPMENT CORPORATION

MAYNARD, MASSACHUSETTS

KENNETH H. OLSEN
PRESIDENT

October 13, 1969

Mr. Samuel Kulp
87 Maples Park
West Lafayette, Indiana 47906

Dear Mr. Kulp:

I am very pleased to answer the questions presented in your letter of September 30th.

Our Company was organized in 1957 to build computers because it seemed no one else was interested in building the simple, straightforward, high-speed computers for the large number of applications outside the normal business applications.

Software is being developed, and it is included as one of the developments that have been made to advance the science of computers. We feel we have the first truly operating time-sharing software for a large computer. Other contributions we've made have been introducing computers into many industrial, medical, and educational areas that hadn't been done before. Part of this was the introduction of many engineering and manufacturing techniques which lowered the cost.

The mini-computer probably started with Whirlwind I at MIT in 1946. It was a 16-bit computer originally started to run a wind tunnel, but eventually it was doing general computation, and, finally, demonstrating the use of computers in air defense.

The most significant change in mini-computers is that they have become less expensive. Along with this came their wide distribution, which means that many people now have a chance to learn what they can do, and this encourages even wider distribution.

Mr. Samuel Kulp

- 2 -

October 13, 1969

In the future, we expect the effective price to continue to come down, and to have much wider distribution. When the people who are leaving school are well-indoctrinated with computers, it will open up whole new applications which have been impractical or unexplored up till now.

Enclosed is some literature describing our computers which might be helpful to you in your project.

Very truly yours,

Kenneth H. Olsen

KHO:ecc
Enclosures

September 30, 1969

Digital Equipment Corporation
146 Main Street
Maynard, Massachusetts 01754

Gentlemen:

I am a senior in the School of Science at Purdue University studying Computer Science. One of my term projects this semester is to investigate some aspect of computers in our society today. Since I have some systems programming experience and I am interested in computer systems and their development, I chose to investigate the development of mini-computers. I am mainly interested in stored-program computers having a storage capacity approximately 4k to 8k, and I believe your company manufactures a computer fitting this description.

So that I may write a complete review of your company and the mini-computer, I would appreciate some information about the company's past, present and future roles in the computer industry.

When was the company organized?

Why did the company begin to manufacture computing machinery?

Is software being developed for computers as well as hardware?

What developments have been made to advance the science of computing?

When did development of the mini-computer begin?

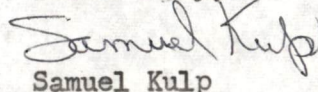
What changes have been made in the mini-computer since its inception?

Can you predict any trends for computers in the future?

I would appreciate some literature on your company and all of your computer products. Some specific information about your mini-computer would be helpful, e. g. specifications, basic instructions, timing, options available, cost, etc.

If a representative of the company will be in this area any time during October or November, I would be glad to talk with him about the company and your computers. For any information you can send and also for your effort in collecting it for me, I thank you very much. My address is given below.

Yours truly,



Samuel Kulp

87 Maples Park
W. Lafayette, Indiana 47906

October 8, 1969

Mr. James Holmes, Buyer
The Pennsylvania State University
219 Shields Building
University Park, Pennsylvania 16802


Dear Mr. Holmes,

Thank you for your September 5, 1969 letter to Mr. Kenneth Olsen, President regarding the return of \$552.00 in modules.

This letter confirms our Branch Office contacting you regarding the return of such equipment for full credit. Please reference Return Authorization Number MA-9342 on all packages so adequate credit can be issued.

Thank you for your interest in DEC.

Very truly yours,


Frank A. Kalwell,
Manager, Marketing Services

FAK.all
CC: Vern Carlson
C. Gallant

9/10

9/7 Frank Kalwell Taking care of

Carole Gallant to have someone else.
Referred to Devoe, then to Kalwell

THE PENNSYLVANIA STATE UNIVERSITY

219 SHIELDS BUILDING
UNIVERSITY PARK, PENNSYLVANIA 16802

Department of Purchases

September 5, 1969

Area Code 814
865-7561

President
Digatal Equipment Corporation
146 Main Street
Maynard, Massachusetts

Dear Sir:

A situation has come about with your company that I feel should be brought to your attention.

Attached you will notice several documents. The first is a copy of Purchase Order #40311 covering several items totaling \$614.31. After receipt and payment of these items the department discovered that some of the items were not compatible with the system they are using.

The second document is a copy of our request to your company for permission to return those items that we could not use.

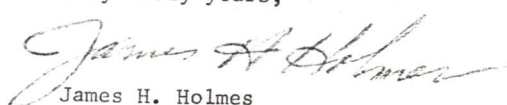
Third is the reply we received from your manager of Marketing Services.

Fourth is a copy of our computer sheets showing that in the last fiscal year alone our purchases from your company exceeded \$485,000.00.

Let me be the first to admit that the department requesting the items in the first place should not have done so without first determining their compatibility with the system they are using. However, it seems to me that when we spend almost a half a million dollars with your company we could expect a little better consideration when we make a \$552.00 mistake than the fact that you are "overstocked in the items referenced."

I would very much appreciate hearing from you on this matter.

Very truly yours,



James H. Holmes
Buyer

JHH:1k1

ENCLOSURES:

- 1. Copy of Purchase Order
- 2. Copy of Return Request
- 3. Copy of Reply
- 4. Copy of Data Processing Sheet

October 6, 1969

Mr. Forman B. Engelhardt
Engelhardt and Company
110 East 42nd Street
New York, New York 10017

Dear Mr. Engelhardt:

I want to thank you for your letter of September 12th concerning your client's company. I feel we have to give a negative answer to your inquiry, as we have no interest in acquiring another company. 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:hdl

C
O
P
Y

ENGELHARDT & COMPANY

212 - 687-0247

SUITE 704
110 EAST 42ND STREET
NEW YORK, N. Y. 10017

September 12, 1969

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

Dear Mr. Olsen:

As you may know, in addition to our private investment banking activities, we are also quite active in the area of acquisitions and mergers.

In this connection, we have available for acquisition a small, profitable manufacturer of custom transformers, reactors and chokes for the electronics industry.

Sales for 1968 were \$1MM, with pre-tax income of \$120M, before adjustment. Sales and pre-tax income for 1969 are projected at \$1.250MM and \$150M, respectively. Net Worth is \$659M, before adjustment. The asking price is \$1.300MM.

In this situation we would seek our fee from the buyer at 5% of the purchase price.

Should this company be of interest, we would be pleased to discuss it further with you.

Thank you for your earliest advice.

Very truly yours,

ENGELHARDT & COMPANY

Forman B. Engelhardt
Forman B. Engelhardt

FBE:m

NOV 5 PM

DATE RECEIVED 31st Nov October 1968
SHIP TO (SAME AS "INVOICE TO" UNLESS OTHERWISE INDICATED)

S O L D T O	Digital Equipment LIMITED,	D.E.C. Limited,
	Arkwright Road,	c/o Baxter-Hoare & Co.,
	Reading,	Blg 8 Ringway Airport,
	Berkshire.	Manchester.
		Edinburgh Univ. ON.235/238

CERTIFICATE OF COMPLIANCE		YES	NO	GOVERNMENT SOURCE INSPECTION	YES	NO
SALESMAN B Thorley	RECEIVED BY PC	COMMISSION		PARTIAL SHIPMENTS ALLOWED 1) YES 2) NO	SHIP VIA air freight	REQUIRED DELIVERY By 30th Nov Urgent.
PURCHASING REFERENCE	SOFTWARE LIBRARIAN	1) TAXABLE 2) TAX-EXEMPT		EXEMPT OR RESALE NO.		SCHEDULED DELIVERY 11-30
PROJECT ENGINEER	MFG. CODE	D.E.C. AGREE. NO.	F.O.B.	TRANSPORTATION TERMS 1) PREPAY 2) COLLECT 3) PPD AND ADD 4) FRT. ALLOWED		
PROD. LINE 50	INST. CODE	HOW RECEIVED mail	CONF. RECEIVED yes	RENEG. 2	Cust. Code 0629	BRANCH 16 State Code 59

ITEM	Qty. Ordered	MODEL NO.	UNIT PRICE	TOTAL PRICE	INVOICE	INVOICE	INVOICE	INVOICE	INVOICE	INVOICE
1	1	1943 WMP	142.00	142.00	1					
2	1	H 701A	136.00	136.00	1					
3	7	S 203	31.50	220.50	7					
4	3	R 111	14.00	42.00	3					
5	4	R 302	44.00	176.00	4					
6	9	S 202	26.20	235.80	9					
7	4	R 002	5.00	20.00	4					
8	2	S 107	27.20	54.40	2					
9	3	R 123	19.00	57.00	3					
10	3	W 103	52.00	156.00	3					
11	2	W 501	13.00	26.00	2					
12	4	R 201	22.00	88.00	4					
13	6	R 131	35.00	210.00	6					
14	1	914-7 Power Jumpers	4.00	4.00	1					

COMPLETE
12/6

EXPORT USE ONLY	SPECIAL INSTRUCTIONS: 12/6
<input type="checkbox"/> TO FOLLOW-DATE CUSTOMER <u>Edinburgh University</u>	sheet 1 of 3



EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

D.E.C. NO. 53724

CUSTOMER ORDER NO. 810/110/M/U3

DATE RECEIVED 31st October &68

SHIP TO (SAME AS "INVOICE TO" UNLESS OTHERWISE INDICATED)

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REC ENGLAND

Details as per page 1

CERTIFICATE OF COMPLIANCE		YES	NO	GOVERNMENT SOURCE INSPECTION		YES	NO
SALESMAN	RECEIVED BY	COMMISSION		PARTIAL SHIPMENTS ALLOWED		SHIP VIA	
PURCHASING REFERENCE		SOFTWARE LIBRARIAN		1) TAXABLE		2) NO	
PROJECT ENGINEER		MFG. CODE	D.E.C. AGREE. NO.	F.O.B.		TRANSPORTATION TERMS	
PROD. LINE	INST. CODE	HOW RECEIVED	CONF. RECEIVED	RENEG.	Cust. Code	BRANCH	State Code

ITEM	Qty. Ordered	MODEL NO.	UNIT PRICE	TOTAL PRICE	INVOICE	INVOICE	INVOICE	INVOICE	INVOICE	INVOICE
15	1	914-19 914-19	4.00	4.00	1					
16	6	W021-18R-W028	36.80	220.80	6					
17	8	S 203	31.50	252.00	8					
18	1	S 603	31.00	31.00	1					
19	1	R 111	14.00	14.00	1					
20	1	R 302	44.00	44.00	1					
21	3	S 107	27.20	81.60	3					
22	4	R 123	19.00	76.00	4					
23	6	W 510	17.00	102.00	6					
24	1	W 040	36.00	36.00	1					
25	1	W 501	13.00	13.00	1					
26	1	W 601	13.00	13.00	1					
27	6	A 601	60.00	360.00	6					
28	2	A 604	62.00	124.00	2					

EXPORT USE ONLY

TO FOLLOW-DATE

CUSTOMER Edinburgh University

SPECIAL INSTRUCTIONS: 11/6

sheet 2 of 3

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DEC ENGLAND

details as per page 1

CERTIFICATE OF COMPLIANCE		YES	NO	GOVERNMENT SOURCE INSPECTION		YES	NO
SALESMAN	RECEIVED BY	COMMISSION		PARTIAL SHIPMENTS ALLOWED		SHIP VIA	
PURCHASING REFERENCE		SOFTWARE LIBRARIAN		1) TAXABLE		EXEMPT OR RESALE NO.	
PROJECT ENGINEER		MFG. CODE	D.E.C. AGREE. NO.	2) TAX-EXEMPT		TRANSPORTATION TERMS	
PROD. LINE	INST. CODE	HOW RECEIVED	CONF. RECEIVED	RENEG.	Cust. Code	BRANCH	State Code
<i>50</i>					<i>0629</i>	<i>16</i>	<i>59</i>

REQUIRED DELIVE
by 30th No

urgent.

SCHEDULED DELIVE

ITEM	Qty. Ordered	MODEL NO.	UNIT PRICE	TOTAL PRICE	INVOICE	INVOICE	INVOICE	INVOICE	INVOICE	INVOI
29	7	S 203	31.50	220.50	7					
30	1	W 681	<i>28.00</i>	28.00	1					
31	1	S 603	<i>31.00</i>	31.00	1					
32	1	A 704	<i>184.00</i>	184.00	1					
33	5	XXXX R 111	14.00	70.00	5					
34	2	R 302	44.00	88.00	2					
35	1	S 202	<i>26.20</i>	26.20	1					
36	1	R 002	<i>5.00</i>	5.00	1					
37	1	S 107	<i>27.20</i>	27.20	1					
38	1	H 900A/W/P	<i>205.00</i>	205.00	1					
				3834.00						
				3771.70						
				Less 33%	1245.55	<i>1261.92</i>				
				total	2588.55	<i>2562.08</i>				

12/6

EXPORT USE ONLY

IMPORT CERTIFICATE ENCLOSED

TO FOLLOW-DATE _____

CUSTOMER Edinburgh Universtiy

SPECIAL INSTRUCTIONS:

Sheet 3 of 3

MEZZSENOOSPPXTOU
24TH SEPTEMBER 1963,
TO B;HOLAN MAYNARD

FROM BOB HORLEYAAA IESTER.

RE MESSAGE 6755 DATED 9.15.69
RECEIVED YOUR MESSAGE AGAIN SO I AM REPLYING AGAIN.

DEPARTMENT OF COMPUTER SCIENCE EDINBURGH HAVE PURCHASE
FEW MODULES FOR 34H RATHER THAN THE OPTION. THUS THEY NEED
THE DIAGRAMS WHICH I HAVE BEEN UNABLE (AND UNWILLING) TO
SUPPLY. THIS POLICY THEY ADOPTED TO SAVE MONEY AND IN FACT THEY
ARE MODIFYING THEIR EXISTING PDP-8 34D CONTROL. NOW THEY ARE
GENERALLY VERY COOPERATIVE USERS AND BIG POTENTIAL FOR FIVE
PDP-15'S. THUS I SUGGEST THAT YOU WRITE AND ENCLOSE DIAGRAMS
STRESSING THAT I HAVE PREVAILED ON YOU TO MAKE A SPECIAL EFFORT
IN THEIR CASE. IN FACT THERE IS NOTHING TO LOSE AND LOTS
TO GAIN BECAUSE THEY HAVE OBTAINED THE DWGS ANYWAY FROM
UNIVERSITY OF BIRMINGHAM HERE.

PLEASE LET ME HAVE A COPY OF YOUR REPLY.

THANKS.

18TH SEPTEMBER 1969
MSG NO 1000/584

TO B. HOLAN
FM BOB THORLEY - MANCHESTER

URGENT - PLEASE DELIVER IMMEDIATELY

RE. MSG 6755 DATED 9.15.69.

DEPARTMENT OF COMPUTER SCIENCE EDINBURGH, HAVE PURCHASED A FEW
MODULES FOR 34TH RATHER THAN THE OPTION. THUS THEY NEED THE
DIAGRAMS WHICH I HAVE BEEN UNABLE (AND UNWILLING)
TO SUPPLY. THIS POLICY THEY ADOPTED TO SAVE MONEY, AND IN
FACT THEY ARE MODIFYING THEIR EXISTING PDP-8 34D CNTROL.
NOW THEY ARE GENERALLY VERY COOPERATIVE USERS AND BIG POTENTIAL
FOR FIVE PDP-15'S. THUS I SUGGEST THAT YOU WRITE AND ENCLOSE
DIAGRAMS STRESSING THAT I HAVE PREVAILED ON YOU TO MAKE A
SPECIAL EFFORT IN THEIR CASE. IN FACT THERE IS NOTHING TO
LOSE AND LOTS TO GAIN BECAUSE THEY HAVE OBTAINED THE DWGS
ANYWAY FROM UNIVERSITY OF BIRMINGHAM HERE.

PLEASE LET ME HAVE COPY OF YOUR REPLY.

THANKS

CORRECTION:- SECOND LINE OF THIS MESSAGE SHOULD READ:-
'MODULES FOR 34H', ETC.

THANKS

++++

UTHE END.

THANK YOU.

1969 SEP 18 AM 8:21

1969 SEP 18 AM 8:21

TO: Bob Thonley UK

FROM: B. Nolan Maynard

Subject: Univ. of Edinburgh PDP-9
Dec. # 32643

Received a letter of protest from Mr. J. Johnston, Senior Technical Officer, Dept of Computer Science, Univ of Edinburgh. He has purchased modules for a 34-H on his PDP-9, C.P. No. ~~368~~ 268 Dec No 32643. He wants drawings for this option. I cannot give him any unless I can prove that he has purchased the option. I have no record of such a purchase here. No P.O., No Purchase Order, No indication on the Key Sheet. Did you install 34-H on PDP-9, Dec No. 34643? Please Reply Today if possible.

To: Bob Thorley Manchester

From: Bernie Nolan.

As Department of Computer Science already has a set of 34 H drawings I see no advantage in sending another set. Thanks for confirming my suspicion that they had purchase modules only and not the controller option. Please refer further communication in this matter to Bob Collings Maynard. Thanks.

10-8-69.
Bob Collings
advised me this
matter had been
taken care of.
lec

K. H. OLSEN

9/10/69

Bob:

Would you please see if you can get somewhere with this.

Please send me a copy of your correspondence for file.

Elsa

Frankie:

Request the documentation on both 34D & 34H display.



EQUIPMENT CORPORATION
 MAY 4, 1961 MASSACHUSETTS

KEY SHEET

STANDARD OPTIONS

REV.	DRAWING NO.	TITLE	DEC. NO.
	MDL A-MC70B-319	MEMORY 18 X 8K NANOSTACK S/N 11060 FAIRCHILD	32643
	MDL A-KC09A-268	CENTRAL PROCESSOR	32643
	MDL A-MC09A-205	ROPE CORE MEMORY	32643
	MDL A-KD09A-277	INPUT/OUTPUT	32643
	MDL A-PC09-676	READER PUNCH ASSEMBLY (TYPE PC09) PUNCH S/N 4676	32643
	MDL A-TC02-109	DECTAPE CONTROL	32643
	MDL A-TU55-1072	DECTAPE TRANSPORT	32643
	MDL A-TU55-1207	DECTAPE TRANSPORT	32643
		KSR-33 TELETYPE S/N 136722	32643
A	MDL A-TU55-1726	DECTape TRANSPORT	32805

SPECIAL FEATURES

	240v/50cycle	32643
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SYSTEMS AND INSTALLATION DRAWINGS

DRAWING NO.	REV LET	NO OF SHEETS	TITLE

REV	ECO	ENG	DATE	MADE BY J. RODIL	CHECKER	ENG B. BORNSTEIN
A		R. Kee	11/11/68	DATE 4/23/68	DATE	DATE
				TYPE OF SYSTEM PDP-9	INST. CODE 3217	SALES 16
				CUSTOMER	EDINBURGH	
				SHEET 1 OF 1	CODE KSI	DWG. NO. A-9-233
						REVLET A

DATE RECEIVED 31st ~~Nov~~ October 1968
SHIP TO (SAME AS "INVOICE TO" UNLESS OTHERWISE INDICATED)

S O L D T O	Digital Equipment LIMITED,	D.E.C. Limited,
	Arkwright Road,	c/o Baxter-Hoare & Co.,
	Reading,	Blg 8 Ringway Airport,
	Berkshire.	Manchester.
		Edinburgh Univ. ON. 235/238

CERTIFICATE OF COMPLIANCE		YES	NO	GOVERNMENT SOURCE INSPECTION	YES	NO
SALESMAN B Thorley	RECEIVED BY AG	COMMISSION		PARTIAL SHIPMENTS ALLOWED	1) YES	SHIP VIA
PURCHASING REFERENCE		SOFTWARE LIBRARIAN		2) NO	air freight	
PROJECT ENGINEER		MFG. CODE	D.E.C. AGREE. NO.	1) TAXABLE	EXEMPT OR RESALE NO.	
2) TAX-EXEMPT		F.O.B.		1) MAYNARD		2) COLLECT
PROD. LINE 50	INST. CODE	HOW RECEIVED mail	CONF. RECEIVED yes	RENEG. 2	Code 0629	BRANCH 16
State Code 59		TRANSPORTATION TERMS		1) PREPAY		3) PPD AND ADD
5) 2		4) FRT. ALLOWED		2) COLLECT		4) FRT. ALLOWED

ITEM	Qty. Ordered	MODEL NO.	UNIT PRICE	TOTAL PRICE	INVOICE	INVOICE	INVOICE	INVOICE	INVOICE	INVOICE
1	1	1943 WMP	142.00	142.00	1					
2	1	H 701A	136.00	136.00	1					
3	7	S 203	31.50	220.50	7					
4	3	R 111	14.00	42.00	3					
5	4	R 302	44.00	176.00	4					
6	9	S 202	26.20	235.80	9					
7	4	R 002	5.00	20.00	4					
8	2	S 107	27.20	54.40	2					
9	3	R 123	19.00	57.00	3					
10	3	W 103	52.00	156.00	3					
11	2	W 501	13.00	26.00	2					
12	4	R 201	22.00	88.00	4					
13	6	R 131	35.00	210.00	6					
14	1	914-7 Power Jumpers	4.00	4.00	1					

COMPLETE
12/6

EXPORT USE ONLY	SPECIAL INSTRUCTIONS: 12/6
<input type="checkbox"/> TO FOLLOW-DATE _____ CUSTOMER <u>Edinburgh University</u>	sheet 1 of 3

Tele: 031-667 1011. EXT 6286



Dept. of Computer Science,
8 Buccleuch Place,
EDINBURGH, 8.

21/8/69

DIGITAL EQUIPMENT CORPORATION,
146 Main Street,
Maynard,
MASSACHUSETTS 01754

Dear Sir,

I would like to protest most strongly of apparently DEC policy in not providing circuit diagrams for prewired options in your computers.

May I explain our position:

We have PDP-8 and PDP-9 computer installations here. The PDP-8 installation includes a 34D display which we would like to have the use of on the PDP-9 also. This means that we move the RM503 scope from the PDP-8 to the PDP-9 and purchase the modules required for the PDP-9 34H option, which we have done already. Since there are delays which require setting up and at least one wiring fault has been found to date we just cannot get the Display going without a circuit diagram. In addition a circuit is necessary for any servicing required in the future.

I have already been in touch with your main office, READING, ENGLAND and had no satisfaction, probably due to MAYNARD policy. The display is needed immediately and I hope this will be treated as a matter of some urgency and all relevant documents sent us soon as possible.

PDP-9 M/C Serial Number is 238
I/O PACKAGE FRAME Number is 277

I am
yours (under protest)

A handwritten signature in blue ink, appearing to read "J. Johnston (M.E.)".

SENIOR TECHNICAL OFFICER

October 6, 1969

Mr. John Lane
Industrial Opportunity Index
6321 Crossview Road
Seven Hills, Ohio

Dear Mr. Lane:

I want to thank you for your letter of September 23rd concerning your client's 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 see the need for making corporate ties.

Very truly yours,

Kenneth H. Olsen

KHO:hdl

C

O

P

Y

Sept - 23 - 69

From the desk of . . .



John Lane

Digital Equipment Corp.
Maynard, Mass.

Dear Sir: I would like to put you in direct touch, if you are interested, with the acquisition officer of a large multi-plant corporation, who today asked me to find for them, a going growing data process equipment firm, such as yours.

They will either consider buying you outright for cash - or you can suggest some terms. In any case, please write,
John Lane
owner

INDUSTRIAL OPPORTUNITY INDEX

Specializing in Acquisitions • Mergers

6321 Crossview Road • Seven Hills Ohio

DIGITAL EQUIPMENT CORPORATION

MAYNARD, MASSACHUSETTS

KENNETH H. OLSEN
PRESIDENT

October 6, 1969

Mr. Robert I. Sattler
President
La Salle Machine Tool, Inc.
Warren, Michigan

Dear Mr. Sattler:

I can readily understand your concern over the use of a new electronic control in a system as large as the one you describe. I will try to answer some of the questions outlined in your letter of September 19th.

I. Reliability

A. PDP-14

The PDP-14 is built from our standard K-series industrial control modules and M-series integrated circuit modules. Both of these products have been in use in the field for the last two years. As you will note in our Controls Handbook, we warranty K- and M-series modules for ten years.

B. Hardware

From a hardware standpoint, we believe the PDP-14 is more reliable than magnetic relay systems, and at least as reliable as available static logic.

C. Software

Software reliability is an area in which there can be no comparison to magnetic or static devices. The PDP-14 is unique in this sense. We do, however, guarantee that DEC-generated software will operate as specified in the PDP-14 User's Guide. Proper systems operation for a particular machine tool depends upon programs developed for the PDP-14 by La Salle.

D. Memory

As far as the PDP-14 memory is concerned, it is a mechanically-alterable memory. This means that the contents of the memory are determined by fixed wiring, and not variable, as in a computer. The reliability of this memory is, therefore, higher than a computer-type, electrically-alterable memory.

October 6, 1969

E. People Skill

I presume you are referring to the level of skill of the people who will be maintaining the system after installation. The PDP-14 is designed for maintenance by present in-plant personnel. Digital Equipment Corporation provides regularly-scheduled maintenance courses which are available to both La Salle and Fiat.

II. PDP-14 System for Fiat

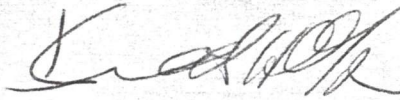
A system composed of eleven PDP-14's would be the largest single use that we know of. We do feel this is a feasible system at the present time. Our PDP-14 staff is extremely competent, and they will assist La Salle in the initial phases of the system. Since the responsibility for programming the system rests with La Salle, you must determine whether or not your staff is up to the task. We believe the software supplied with a PDP-14 is sufficient for the implementation of the control functions. Computer-monitoring is an area in which experienced computer programmers are necessary.

III. Training School

Mr. Chapman has been contacted by Mr. Melvin of our PDP-14 staff, and all arrangements have been made.

In summary, let me say that if I were building a large transfer machine, I would have more confidence in controlling it with PDP-14's than with a large number of relays. We look forward to a long and mutually rewarding association with La Salle Machine Tool.

Sincerely yours,



Kenneth H. Olsen

KHO:ecc

cc: Mr. Allen Devault

Written by
John Kim's sign by
Dale DeSautel

digital

September 26, 1969

Mr. Robert I. Sattler
President
Lasalle Machine Tool, Incorporated
Warren, Michigan

Dear Mr. Sattler:

Subject: PDP-14 Machine Controllers

Thank you for your letter of September 19, 1969. I can readily understand your concern over the use of the PDP-14 in a system as large as the one which you describe. *a new electronic control*

I RELIABILITY

A. PDP-14 ~~Reliability~~

The PDP-14 is built from our standard K series industrial control modules and M series integrated circuit modules. Both of these products have been in use in the field for the last two years. As you will note in our Controls Handbook, we warranty K and M-series for 10 years. From a hardware standpoint, we believe ~~that~~ the PDP-14 is more reliable than magnetic relay systems, and at least as reliable as available static logic.

B. Software

Software reliability is an area in which there can be no comparison to magnetic or static devices. The PDP-14 is unique in this sense. We do, however, guarantee that DEC-generated software will operate as specified in the PDP-14 User's Guide. Proper systems operation for a particular machine tool depends upon programs developed for the PDP-14 by Lasalle.

C. *Memory*

As far as the PDP-14 memory is concerned, it is a mechanically-alterable memory. This means that the contents of the memory are determined by fixed wiring and not variable, as in a computer. The reliability of this memory is, therefore, higher than a computer-type electrically alterable memory.

D. People Skill

I presume ~~that~~ you are referring to the level of skill of the people who will be maintaining the system after installation. The PDP-14 is designed for maintenance by present in-plant personnel. Digital Equipment Corporation provides regularly-scheduled maintenance courses which are available to both Lasalle and Fiat.

II PDP-14 SYSTEM FOR FIAT

A system composed of ^{seven} PDP-14's would be the largest single use that we know of. We do feel ~~that~~ this is a feasible system, at the present time. ~~The~~ PDP-14 staff is extremely competent, and will assist Lasalle in the initial phases of the system. Since the responsibility for programming the system rests with Lasalle, you must determine whether or not your staff is up to the task. We believe ~~that~~ the software supplied with a PDP-14 is sufficient for the implementation of the ~~Control~~ control functions. Computer monitoring is an area in which experienced computer programmers are necessary.

III TRAINING SCHOOL

Mr. Chapman has been contacted by Mr. Melvin of the PDP-14 staff, and all arrangements have been made.

~~In sure~~
Thank you for your interest in Digital Equipment Corporation. ~~Look~~ Look forward to a long and mutually rewarding association with Lasalle Machine Tool.

Very truly yours,

Kenneth H. Olsen
President

cc

[Handwritten notes and signatures]
P90261.
By [unclear] of
[unclear] - [unclear]
6 14's - [unclear]
[unclear]

LASALLE MACHINE TOOL, INC.
WARREN, MICHIGAN

ROBERT I. SATTLER
PRESIDENT

September 19, 1969

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

Subject: Using PDP-14 Machine Controllers
for Fiat Transmission Machines.

Dear Mr. Olsen:

Following please find a confirmation of the telephone conversation held Thursday, September 18, 1969 between your Mr. Al DeVault and myself.

I. Inasmuch as La Salle Machine Tool is making its first application of your PDP-14 Machine Controller to a machine which is scheduled to be shipped December 1969, we do not have an adequate amount of experience with this equipment to make a proper evaluation of same.

Therefore, I am personally asking you to put in writing over your signature an opinion as to the following:

A. Do you consider the PDP-14 Machine Controller to be as reliable from a hardware, software and existing people skill as conventional magnetic relay or G.E. static type logic control panels?

Sent to Al DeVault
9/23/69
for answer under
Mr. Olsen's signature

LASALLE MACHINE TOOL, INC.
WARREN, MICHIGAN

Mr. Kenneth Olsen
Page 2

- B. Do you think that a system which requires eleven (11) PDP-14 to be used would at this point in time be too complex to undertake?

Please be advised that the Pontiac job we are working on is a Research and Development type program which is understood by both parties involved.

The Fiat program, on the other hand, is not a Research and Development program and the Machine Controller must function reliably from the beginning.

- II. La Salle Machine Tool (Mr. J. L. Chapman) talked with your Mr. David L. Micciche concerning Training School to be conducted at La Salle-NuCEP. Since these discussions, however, it seems as though Digital Equipment Corporation lost the communications.

Please have Mr. Micciche contact our Mr. Chapman and come to an agreement on the training schedule.

LASALLE MACHINE TOOL, INC.

WARREN, MICHIGAN

Mr. Kenneth Olsen

Page 3

III. The people that have attended the Digital Equipment Corporation training courses have made reports which have come to my attention. There are a couple of items that should be of interest to you. A copy of these reports are enclosed for your information.

Thanking you in advance for your prompt attention to this request.

Respectfully yours,

R. Sattler

R. Sattler
President

RS/bmc

Enclosures

cc: Mr. Allen DeVault

September 15, 1969

TO: Mr. Paul Joichi, Manager
Controls Engineering & Concept Dept.

FROM: Daniel F. Glisky

SUBJECT: PDP-14 Programming School Evaluation School
Dates 8-8-69 to 8-12-69.

The programming class was conducted at an accelerated pace with heavy emphasis on Boolean Algebra, converting a conventional ladder diagram to Boolean Equations, and programming techniques and aids.

The three basic programs necessary to control the PDP-14 were also dealt with at some length. These being the program translator (Bool-14), the text handler (PDP-8 Editor) and the debugging aid (Sim-14).

The presentation of the material in the classroom was excellent. It was presented logically and straight forward. The instructors knew their subjects well and adequately answered most questions.

The lab portion of the class was also very beneficial, but it did assume that a person was somewhat familiar with the PDP-8 computer. A great deal more benefit could be derived from this portion if the person knew at least the basics of how to load the tapes and get the computer running. I would recommend that anyone else who attends this class from LaSalle have at least two days at the console of the computer before attending school. This would result in gaining much greater benefits from the lab portion for LaSalle.

Daniel Glisky

September 16, 1969

TO: Mr. Paul Joichi, Director Concept Dept.

FROM: Dennis E. Chapman

SUBJECT: Evaluation of Digital Schools

1. I attended Digital's PDP-14 School during the week of June 16, 1969. The following subjects were covered during this course:

- A. Binary, Octal and Decimal Numbers Conversion.
- B. Boolean Algebra.
- C. PDP-14 System Description.
- D. Instructions used with the PDP-14.
- E. PDP-14 Simulator (SIM-14).
- F. Program Assembly Language (PAL-14).
- G. Symbolic Editor.
- H. Monitoring of the PDP-14.

REMARKS: The overall impression I have of the school is good. The instructor seemed to know the subject well and answered most questions satisfactory. Bool-14 was not covered during this course because it had not been finalized. Monitoring of the PDP-14 covered approximately 2 hours, which I felt was insufficient.

2. I attended Digital's PDP-8 (Paper Tape) School during the week of August 4, 1969. The following subjects were covered during this course:

- A. Computer Fundamentals.
- B. Programming Fundamentals.
- C. Elementary Programming Techniques.
- D. System Description and Operation.
- E. Input/Output Programming.
- F. Symbolic Editor.
- G. Program Assembly Language (PAL-III).
- H. Octal Debugging Technique (ODT).
- I. Floating Point System.

REMARKS: My overall impression of the PDP-8 (Paper Tape) School was good. The instructor seemed knowledgeable of the material presented. The course is one in basic programming designed for personnel with little programming experience. It is very compact, covers a lot of material in a very short period of time, and allows the student to become familiar with basic programming, so he can read and understand the manuals dealing with computer programming.

3. I attended Digital's PDP-8 Mass Storage School during the week of August 25, 1969. The following subjects were covered during this course:

- A. Monitoring Fundamentals.
- B. Peripheral Interchange Program (PIP).
- C. Disc Editor.
- D. Program Assembly Language (PAL-D).
- E. Dynamic Debugging Technique (DDT-D).
- F. Mass Storage Programming.
- G. Mass Storage Devices.
- H. Use of Command Decoded for System/User Compatibility.
- I. Extended Memory Programming.

REMARKS: This course covered the Dec/Tape and Dec/Disc Storage Devices. The material was presented in an acceptable manner by the instructor. This course is also very compact requiring the student to absorb a lot of information in a short period of time.

CONCLUSIONS AND RECOMMENDATIONS:

I feel that the three weeks I spent at Digital was very worthwhile. I acquired a lot of basic knowledge that I feel I could not have obtained through books. LaSalle's use of Digital's equipment is very advanced and complex, but I feel that by attending these schools', a student has a strong basic background in Digital's equipment for the solution of whatever problem might arise.

I would like to recommend at this time that all future LaSalle personnel planning to attend these schools', be given a few days prior to attending school to familiarize themselves with the PDP-8 Computer. This I feel would remove a lot of unnecessary confusion from the first course they attend. I also feel the future employee's attending these schools' would benefit by attending the PDP-8 (Paper Tape) course first, the Mass Storage Course second, and the PDP-14 course last. I think they would get much more out of each course, if attended in this order.

Dennis E. Chapman

DIGITAL EQUIPMENT CORPORATION

MAYNARD, MASSACHUSETTS

KENNETH H. OLSEN
PRESIDENT

October 3, 1969

Mr. John Young
1220 Orange Avenue
Clinton, Massachusetts 01510

Dear John:

Our outing at Canobie Lake Park was really a success. There seems to be a pretty unanimous opinion that it was one of the best ever.

I understand you were partly responsible for organizing the group which handled the badges at the gate.

You did an excellent job, and I appreciate your contribution toward making the event so successful. Please convey my thanks to the people who worked with you.

Sincerely yours,

Kenneth H. Olsen

KHO:ecc

DIGITAL EQUIPMENT CORPORATION

MAYNARD, MASSACHUSETTS

KENNETH H. OLSEN
PRESIDENT

October 3, 1969

Mr. John Sullivan
123 Hammond Road
Belmont, Massachusetts 02178

Dear John:

There seems to be a pretty unanimous opinion that our outing at Canobie Lake Park was one of the best ever. It was a great success.

I appreciate your part in organizing the group which helped handle the badges at the gate.

Thank you for your contribution toward making the event so successful, and please extend my thanks to the people who worked with you, also.

Sincerely yours,

Kenneth H. Olsen

KHO:ecc

DIGITAL EQUIPMENT CORPORATION

MAYNARD, MASSACHUSETTS

KENNETH H. OLSEN
PRESIDENT

October 3, 1969

Mr. George Gerelds
1119 Trapelo Road
Waltham, Massachusetts 02154

Dear George:

Our outing at Canobie Lake Park was a real success. There seems to be a pretty unanimous opinion that it was one of the best ever.

I understand that you voluntarily spent a good part of the day helping out at the gate, and that your daughters pitched in, too.

I appreciate your assistance and the contribution toward making the event so successful.

Sincerely yours,

Kenneth H. Olsen

KHO:ecc

October 2, 1969

Mr. James Fava
Manager
Maynard Community Band
30 Marlboro Street
Maynard, Massachusetts 01754

Dear Mr. Fava:

Thank you so much for performing at Digital's outing at Canobie Lake Park on Saturday, September 13th. We received a lot of favorable comments about the Maynard Community Band.

Please convey our appreciation to all the members of the Band.

Sincerely yours,

Kenneth H. Olsen

KHO:ecc

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October 2, 1969

C
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Mr. John Tobin
Tobin's Vending Service
Walnut Street
Maynard, Massachusetts 01754

Dear John:

Our outing at Canobie Lake Park was really a success. There seems to be a pretty unanimous opinion that it was one of the best ever.

You and your staff did a superb job in feeding over 5,500 hungry adults and children. I was personally impressed with the way you handled the large crowd, and we have received many favorable comments on the food service.

Please convey my appreciation to all the members of your staff, also.

Sincerely yours,

Kenneth H. Olsen

KHO:ecc

	FROM:	RE:	
John Tobin Tobin's Vending Service	Ken Olsen	outing at canabie lake	10/2/69
James Fava Maynard Community Band	Ken Olsen	thanks/outing	10/2/69
George Gerelds	Ken Olsen	thanks/outing	10/3/69
John Sullivan	Ken Olsen	thanks/outing	10/3/69
John Young	Ken Olsen	thanks/outing	10/3/69
Robert Sattler LaSalle Machine Tool, Inc.	Ken Olsen	building transfer machine	10/6/69
John Lane Industrial Opportunity Index	Ken Olsen	"no" to merger	10/6/69
Bob Thorley Manchester	Bernie Nolan	confusion/drawings	10/8/69
Forman B. Engelhardt Engelhardt & Co.	Ken Olsen	purchased modules/controller op. "no" to merger	10/6/69
James Holmes Penn. State Univ.	Frank A. Kalwell	return of equipment	10/8/69
Samuel Kulp	Ken Olsen	inquiry about DEC (answers)	10/13/69
Leo Nothmann Management Recruiters	Graydon Thayer	explanation of misunderstanding	10/15/69
Charles Missler Cyphernetics Corp.	Ken Olsen	sorry for your problems field service taking care of	10/17/69
Douglas Hopkins	Ken Olsen	good ideas	10/21/69
C. H. Springer MFB Mutual Insurance Co.	Ken Olsen	thanks for comments <i>on talk</i> <i>given at MIT Alumnae Group</i>	10/21/69
Dr. Arthur T. Ward, Jr.	R.L. Lane	used computers/sold at discount	10/28/69

*The company
satisfied w/ a number
and couldn't get time
w/ in 2-3 hours*

DIGITAL EQUIPMENT CORPORATION

MAYNARD, MASSACHUSETTS

KENNETH H. OLSEN
PRESIDENT

November 25, 1969

Mr. Alfred Bergman
The Lincoln Building - Suite 1415
60 East 42nd Street
New York, New York 10017

Dear Mr. Bergman:

I want to thank you for your recent letter offering to aid Digital Equipment Corporation in business ventures and expansion plans.

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

To Louise Warren

11-18

Elsa
per our
conversation

11/18/69

Suggest you work with Elsa on
a "No Interest" letter signed by Ken - as
this fellow is sort of a "high powered"
consultant and may write to Ken again or
call him if someone else signs

Bob

ALFRED N. BERGMAN

PERSONNEL
NOV 17 1969
G. A. HAYES

THE LINCOLN BUILDING—SUITE 1415 • 60 EAST 42nd STREET • NEW YORK, N. Y. 10017 • (212) 661-7171

October 22, 1969

Dear Mr. President:

Enclosed is a copy of my Military and Business History for your perusal.

I am in an excellent position to increase your business in government and industry. I maintain an office in New York City at the above address and visit Washington, D.C. continually.

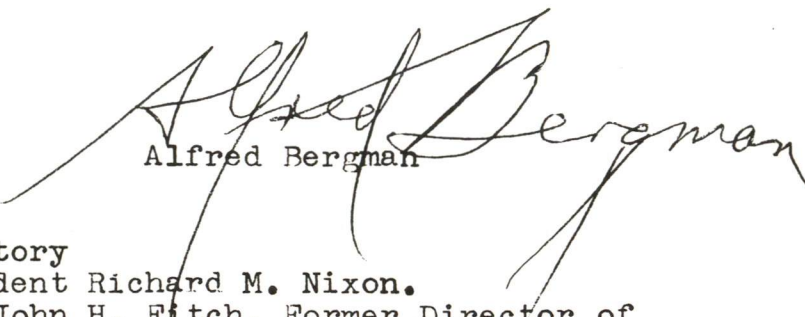
I am also able to increase foreign business as I worked abroad for many years and speak French and German fluently.

I represent successfully a few companies only in non-competing lines to obtain new business for them.

I am also in the merger business. If you are interested in merging your company with a blue-chip organization or in discussing the above with me without obligation, kindly contact me at the above address or telephone number.

Awaiting your reply,

Very sincerely,


Alfred Bergman

AB:az

Encs: Military and Business History
Copy of letter from President Richard M. Nixon.
Copy of letter from Col. John H. Fitch, Former Director of the Budget, Department of Defense and Department of the Army.



ALFRED BERGMAN

Degrees: A. B. Degree and B. Sc. Degree at United States
Military Academy, West Point
Graduate of Field Artillery School, Fort Sill,
Oklahoma
Graduate of French Artillery and Engineering
School, Fontainebleau, France

Experience:

Mr. Bergman has spent several years as Consultant to the United States Government of Foreign and Domestic Questions, Washington, D. C. -- organized and directed 250 of the most important Foreign and American Industrialists, Bankers, Engineers, and others for the War Department, and other Departments of the Government.

He was European Director and Assistant to the President of the Royal Typewriter Company for over ten years, with Headquarters in Berlin, Germany and later in London, England covering Europe including Russia, Turkey and British Isles. He had complete charge of Sales, Development, Marketing, Advertising, Publicity and Finance and trained Salesmen and Dealers in some 25 countries of Europe.

Upon returning to the United States when the Second World War began, he aided in preparing and establishing the Controlled Materials Plan at the request of President Franklin D. Roosevelt. He worked with War Production Board in establishing C. M. P. for all industry in 1943. The Consultants to the Controlled Materials Plan were also used to set up finances in various countries occupied by the United States in Europe and Japan after the war. Industrial and Engineering Consultants were also used for the same purpose by the Government.

He was for some time Financial Sales Representative in Denver and Colorado Springs, Colorado with a division of Francis I. DuPont and Company, New York City. He is the Financial Representative of large Investment and Chemical Companies in the U.S.A. and was also a Director of Export and Domestic Trade for many years in Europe and the United States.

At times he has been Financial and Economic Advisor to the United States Government; Assistant to the Commandant, Army Industrial College for Foreign Affairs; Assistant Chairman of the Democratic National Committee; Lecturer on Finance at Continental Air Defense Command, Colorado Springs; Management Consultant and Advisor on Business, Marketing and Sales; Advisor on Audio-Visual Communications Systems for Industry and Education; Founder of the U.S. Committee for Care of European Children.

Mr. Bergman has been cleared for confidential and other work by the U.S. Government. He speaks French and German fluently. He is mentioned in "Who's Who in America", 1940 edition.

Clubs:

The Army and Navy Club, Washington, D.C.
West Point Society of New York
American Ordnance Association

Decorations:

Virtuti Militari (Poland)
U.S. Victory Medal with Bronze Star
U.S. Medal of Occupation, Germany

**ALFRED BERGMAN
THE LINCOLN BUILDING - SUITE 1415
60 EAST 42nd STREET
NEW YORK, N. Y. 10017
PHONE: (212) 661-7171**

RICHARD M. NIXON
R O. BOX 1968
TIMES SQUARE STATION
NEW YORK, N. Y. 10036

October 28, 1968

Dear Mr. Bergman:

I want to thank you for your letter. In the long run, it is people like yourself, interested in the political life of our country, who will assure the continuation of government that is of, for and by the American people.

It is your kind of help and support that makes me so confident that, together, we can provide the new leadership our nation so desperately needs.

I feel we are winning this crusade -- and all of the normal barometers of an election year would seem to support that statement. But like the coach of any winning team at the start of the fourth quarter, I can only ask "my team" to work even harder -- as I myself am doing -- to make sure that a victory of the people over the old politics will not elude us.

So I ask you again -- even as I appreciate your efforts up to now -- to help us keep pouring on the coal right through the time the polls close on November 5th.

With my very best wishes,

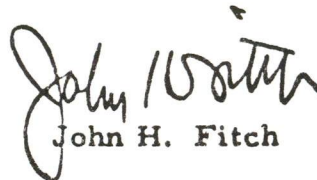
Sincerely,

A handwritten signature in cursive script, reading "Richard Nixon". The signature is written in dark ink and is positioned below the typed name "Sincerely,".

To whom it may concern:

I have known Alfred Bergman for approximately 25 years. My first association with him was in 1943 when he was Chief of the Foreign Industrial Section in the War Department. In this capacity, he organized about 250 leading foreign and American industrialists, bankers, engineers and scientists to develop substitutes for critical materials as well as to provide bombing intelligence for the Air Corps. This group, under his leadership, made a very valuable contribution to the U.S. success in World War II.

Since Mr. Bergman left government service, I have been in contact with him sufficiently to know that he has successfully represented several firms in their relations with the U.S. Government.



John H. Fitch

Former: Deputy Assistant Secretary of Army
(Financial Management)

Current: Vice President
Maremont Corporation
1825 K Street N. W.
Washington, D. C.

DIGITAL EQUIPMENT CORPORATION

MAYNARD, MASSACHUSETTS

KENNETH H. OLSEN
PRESIDENT

November 25, 1969

Mr. Thaddeus L. Kowalski
Vice President
Intromation, Inc.
332 South Michigan Avenue
Chicago, Illinois 60604

Dear Mr. Kowalski:

I want to thank you for your letter of November 14th concerning your client's interest in merger or acquisition possibilities.

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

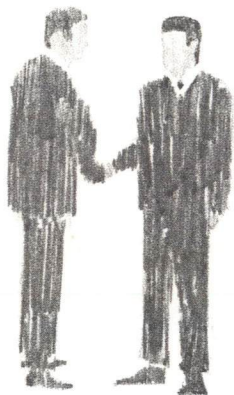
Very truly yours,

Kenneth H. Olsen

KHO:ecc

November 14, 1969

CONFIDENTIAL



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

Dear Mr. Olsen:

I am currently in contact with an exceptionally profitable manufacturing and distributing company in the educational field. The officers of this company are willing to discuss sale, merger or acquisition possibilities, preferably with a computer company and, if you are interested, I will be happy to institute negotiations.

This firm, which has impressive textbook sales, also manufactures a cassette player and accompanying tapes for elementary level reading classes. They have now developed and are beginning to market a computer designed to assist in individualized instruction in the classroom. Computer assisted instruction, as you are probably aware, is rapidly gaining support on all levels as the future direction in which classroom instruction techniques in this country will move.

I hope to hear from you as soon as possible. If you would like further details, please call me.

Very truly yours,

Thaddeus L. Kowalski

Thaddeus L. Kowalski
Vice President

TLK/j

Intromation

inc. 332 south michigan avenue
chicago, illinois 60604
312 939-3838

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Executive Search & Placement
Mergers & Acquisitions



November 24, 1969

Mr. Walt J. Sonneville
Manager, Market Research
Oak Manufacturing Co.
Crystal Lake, Illinois 60014

Dear Mr. Sonneville:

Mr. Kenneth Olsen, President of Digital Equipment Corporation read and referred to me for reply your letter of November 4th, 1969, concerning the availability of components for license to your organization.

At this time we are sorry to say that we have no patented electrical or electro-mechanical components available for manufacture by you under license from Digital Equipment Corporation. However, we have retained your letter in our file so that if in the future an occasion does arise under which your company can be of service, we will certainly contact you.

Very truly yours,

DIGITAL EQUIPMENT CORPORATION

Edward A. Schwartz
General Counsel and Secretary

EAS:lml

CC: Kenneth H. Olsen

mailed out 11/26/69

sent to Ed Schwartz

OAK MANUFACTURING CO.

CRYSTAL LAKE, ILLINOIS 60014

A DIVISION OF OAK ELECTRO/NETICS CORP

telephone: 815-459-5000

TWX: 910-634-3353

CABLE ADDRESS: OAKMANCO

RECEIVED

NOV 7 1969

November 4, 1969

KENNETH H. OLSEN

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

Dear Sir:

Do you have a patented electrical or electro-mechanical components available for manufacture by us under license to you? If so we would be pleased to examine the potential benefit of such a licensing arrangement.

O/E/N manufactures components only, mostly electrical and electro-mechanical. Oak Manufacturing Co., the largest of the O/E/N organizations, manufactures low-power switches, relays, T.V. tuners, solenoids, and thick-film packages related to our components.

We are desirous too of expanding our product line and would be pleased to hear of license opportunities relating to any type of component for which a patent or patent-application has been issued.

Enclosed is a brochure describing O/E/N organizations and their products.

Walt J. Sonnevill
Manager, Market Research

WJS/km

digital

November 24, 1969

Mr. K. P. Lee
UNIVERSITY OF SINGAPORE FACULTY OF ENGINEERS
Polytechnic Campus
Prince Edward Road, Singapore 2.

Dear Mr. Lee:

Thank you for your letter of October 24, 1969. Enclosed is a price list of our Computer Lab 916 and our 1968 Logic Handbook. Page 230 of this handbook describes our 10 bit D/A converter, A608; and, page 235 describes our 10 bit A/D converter, A800.

The A608 converter is \$350 and the A800 converter is \$700. The above prices are F.O.B. Maynard.

In your letter you mentioned the use of these converters with our computer lab. Didn't you mean to use these converters with our Logic Lab? The computer Lab does not have the capabilities to utilize A/D or D/A converters.

We will be glad to send you a proforma invoice when you have determine if the above converters are suitable.

If you have any questions or comments concerning the above, please feel free to contact us.

Sincerely yours,

R. Dangelmayer

R. Dangelmayer
Sales Support

RD/vk

11-14-69

Bob Paulist to answer

University of Singapore Faculty of Engineering



Polytechnic Campus, Prince Edward Road, Singapore 2. ☎ 71873 75012-3 Polytech Singapore

24th Oct., 1969

The Manager,
Digital Equipments Corporation,
146 Main Street, Maynard,
Massachusetts 01754.
U.S.A.

RECEIVED

OCT 26 1969

KENNETH M. OLSEN

Dear Sir,

We are interested to order two units of Digital Computer Lab and 10 bit D/A and A/D units to be used in conjunction with the Digital Computer Lab from your company.

Could you please supply us detailed information (especially the 10 bit D/A and A/D units) and quotations at your earliest convenience.

Thank you.

Yours sincerely,

Mr. K.P. Lee
Lecturer.

LKP/ae

DIGITAL EQUIPMENT CORPORATION

MAYNARD, MASSACHUSETTS

KENNETH H. OLSEN
PRESIDENT

November 21, 1969

Mr. John S. Howe
President
The Provident Institution for Savings
36 Temple Place
Boston, Massachusetts

Dear Mr. Howe:

I am most flattered to receive your invitation to become a Corporator of The Provident Institution for Savings.

I feel I have to give a negative reply, however, because I have taken on so many responsibilities outside my own organization that I don't feel I can, with a clear conscience, accept another one.

Sincerely yours,

Kenneth H. Olsen

KHO:ecc

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Comes Having"

The **Provident** Institution for Savings
in the Town of Boston • 36 Temple Place
Telephone 423-9600

JOHN S. HOWE
PRESIDENT

November 19, 1969

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

Dear Mr. Olsen:

The Provident Board of Investment would like to propose your name for election as a Corporator of this Bank, and I hope you are willing to be nominated at our next Annual Meeting.

This year's Annual Meeting will be held on December 16th at the Bank. Assuming you are elected, you will then be eligible to attend the 1970 and subsequent meetings.

The law does provide that all Corporators shall have a savings account in the Bank, which account must be opened not later than thirty days following election. No amount is specified. The law permits a person to be a Corporator or a Trustee of another savings bank, but this Bank prefers that a Corporator have only one affiliation with a Massachusetts Savings Bank.

We are very proud of our list of distinguished Corporators, and I do hope you will send me a favorable reply.

Sincerely yours,

JSH:bbw

Other Offices: 30 WINTER STREET • 120 FRANKLIN STREET • SUMMER - WASHINGTON SUBWAY
15 PRUDENTIAL CENTER PLAZA • 25 STATE STREET
CHARLES RIVER PLAZA SHOPPING CENTER

DIGITAL EQUIPMENT CORPORATION

MAYNARD, MASSACHUSETTS

KENNETH H. OLSEN
PRESIDENT

November 21, 1969

Mr. William H. Blaney, Jr.
Vice President
Rowles, Winston & Co., Inc.
200 Houston Natural Gas Building
Houston, Texas 77002

Dear Mr. Blaney:

Thank you for your letter requesting a copy of the talk I gave before the Boston Society of Financial Analysts.

I collected notes for the talk for several days, but didn't get inspired to assemble them until that morning, so I'm afraid I don't have anything written down that I can mail you.

Sincerely yours,

Kenneth H. Olsen

KHO:ecc



ROWLES, WINSTON & CO., INC.

Member New York Stock Exchange

200 HOUSTON NATURAL GAS BUILDING

HOUSTON, TEXAS 77002

November 19, 1969

K.H. Olsen, President
Digital Equipment
146 Main St.
Maynard, Mass. 01754

Dear Mr. Olsen:

I am pleased to hear that you recently discussed your company before the Boston Society of Financial Analysts. I would very much welcome the opportunity to read a copy of your talk and would appreciate it if you will send me one.

Thank you very much.

Sincerely yours,

William H. Blaney, Jr.
Vice President

WHB/sb

November 20, 1969

Robert A. Trumpis, P. E. President
Robert A. Trumpis and Associates, Inc.
3355 Via Lido - Suite 302
Newport Beach, California 92660

Dear Mr. Trumpis:

Your recent letter to Mr. K. H. Olsen has been referred to me for reply. While your organization has very impressive qualifications, I do not feel that we could utilize the services you offer at this time.

I do want to thank you for considering us among your prospects. Should problems arise in our corporate planning efforts in the future, we will certainly consider assistance from your organization.

Sincerely yours,

W. Brewster Kopp
Vice President -
Finance and Administration

mh

10: Brewster Kopp,

Ken sent this letter
Personnel for an answer
I feel you or someone in
your department should
respond. My opinion is
we do not need them at
Tomi. Would you please
send a copy of the answer
to Ken. Thanks

RECEIVED

NOV 19 1969 *Win 1*

BREWSTER KOPP

ROBERT A. TRUMPIS
AND ASSOCIATES, INC.

MANAGEMENT CONSULTANTS
CORPORATE PLANNING AND DEVELOPMENT COUNSELORS

(714) 675-7450 3355 VIA LIDO - SUITE 302 - NEWPORT BEACH, CALIFORNIA 92660

OCTOBER 24, 1969

Mr. K. H. Olsen Chairman
Digital Equipment Corporation
146 Main Street
Maynard, Massachusetts 01754

Dear Mr. Olsen:

We have recently relocated our firm from La Grange, Illinois to Newport Beach, California after completing a six month assignment here for one of the large Eastern Conglomerates.

We are specifically in the business of Corporate Planning and Development and have gained a respected expertise in the merger/acquisition field of this profession.

As a Professional Corporate Manager it has been my task to handle "profit deficient" Companies for several New York and Midwestern Investment groups. My last task as Executive Vice President and General Manager of the famous National Video Corporation of Chicago was to build an Industrial complex that grew from 12 million to 87 million of annual sales in 2½ years. Our product here was the 1st rectangular Color Television Tube which you now probably enjoy in your own set at home.

I resigned in late 1967 to form this Firm as it was my belief that the hard hitting background I have enjoyed in handling Engineering, R&D, Finance, Manufacturing, Marketing and EDP Controls could be well applied for Client Companies embarked on internal and external growth programs.

Your own extraordinary success pattern indicates the type of aggressive Corporate Business planning with which we are familiar and like to be associated with.

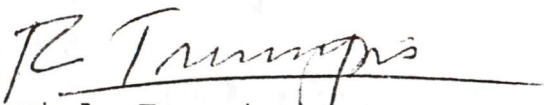
October 24, 1969

Mr. K. H. Olsen Chairman
Digital Equipment Corporation

We would like to explore the possibilities of your utilizing our talents to continue your probable 25 to 30% planned annual growth. I am sure your own Corporate Planning staff is doing an excellent job, but we feel that we can help accelerate their assignments as we have covered the Industrial areas of this Country well, and have a capability that may be valuable to your continued needs.

I would like to hear from you as soon as possible.

Sincerely,

A handwritten signature in cursive script, reading "R. Trumpis", with a horizontal line drawn underneath it.

Robert A. Trumpis, P.E. President

RT/et
enclosure

digital

November 20, 1969

Mr. Joseph E. Grimes
Associate Professor of Linguistics
Cornell University
Ithaca, New York 14850

Dear Professor Grimes:

In answer to your recent inquiry to Mr. Olsen, regarding the PDP-10 in a multi-user environment, I am enclosing some literature containing general information on the subject.

The PDP-10 is the most powerful computer built by Digital, and has been particularly successful in applications requiring conversational time-sharing for several users.

Please feel free to contact me directly for more information.

Very truly yours,

Bino Nanni

Bino Nanni
PDP-10 Marketing Group

BN:11

Encl: 1. PDP-10 Brochure
2. PDP-10 Aid Manual

blcc: Ken Olsen
Bob Savell

CORNELL UNIVERSITY
COLLEGE OF ARTS AND SCIENCES
ITHACA, N. Y. 14850

DIVISION OF MODERN LANGUAGES

November 10, 1969

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

Dear Ken:

At Cornell this year we are trying to evaluate just what the needs of the Field of Linguistics as a whole are for large scale computational facilities. So far, it seems that everyone has his own little deck of programs to do fairly restricted things. We are aware, however, of a number of projects of similar scope such as dictionary editing and language or dialect comparison. We have therefore been discussing design considerations for a computing system that could handle several projects of this kind simultaneously, both for users on the campus and for people at a distance.

Cornell has an IBM system/360 model 65 of rudimentary time sharing capability. The most satisfactory approach to the kind of problems we have might be to use the 360 to manage the major files and have a satellite computer for working files, console operations, and CRT displays with light pens. I am impressed with the reliability of JOSS for multiuser computing. Would you please have someone send me information on how the PDP-10, if that is the appropriate machine, might be used for this kind of work. We will be looking at some other systems too. By the time the project has jelled thoroughly we will be in a position to look for funds for it, which will come partly from research foundations and partly from commercial users.

The IOTA system continues to function. The last I heard we do not have incremental tape drives in service yet, but the software to handle them is checked out as far as it can be.

Cordially,



Joseph E. Grimes
Associate Professor
of Linguistics

JEG/eb



November 19, 1969

Marcel Thau, M.D.
277-279 South Marshall Street
Hartford, Connecticut 06105

Dear Dr. Thau:

Thank you for your letter of November 6, 1969, in which you expressed interest in our line of small computers for bio-medical applications. I am enclosing literature descriptive of products which may be appropriate for your use.

We realize that many worthy institutions such as yours sometimes require assistance in obtaining electronic instrumentation and computing facilities. Until just a few years ago, it was generally true that to purchase a computer required a substantial investment.

However, Digital Equipment Corporation pioneered and developed the concept of compact yet powerful digital computers at the lowest prices in the industry. Indeed, many of our computers are well within the reach of the most limited budgets.

Since we sell our computers at the lowest possible cost, we of course cannot offer direct assistance.

Your interest in our company and its products is sincerely appreciated. Should you have any questions or require clarification, please contact the undersigned at your convenience.

Very truly yours,

A handwritten signature in cursive script that reads "Jerry A. Courtier".

Jerry A. Courtier
Manager
Patient Monitoring Systems

JAC/hmw

Enclosures

bcc: Ken Olsen

DIGITAL EQUIPMENT CORPORATION, 146 MAIN STREET, MAYNARD, MASSACHUSETTS 01754

(617)897-5111 TWX 710-347-0212 TELEX 94-0457

Legal

MARCEL THAU, M. D.
277-279 SOUTH MARSHALL STREET
203 HARTFORD, CONN. 06105
—
TELEPHONE: 522-8804

November 6, 1969.

To the President,
Digital Equipment Corporation,
146 Main Street,
Maynard, Mass. 01754.

Confidential.

Dear Sir:

favorable

I have heard very favorable comments about your "compact" computer.

I have been hired to head the Emergency Care Service of a very modern hospital in a Western city. I am supposed to start working there on January 1, 1970. I would like to do all I can to help this worthy hospital to obtain a medical computer.

May I ask you to please let me know how to go about it?
At the same time I would appreciate to receive from you all the pertinent information concerning your computer.

Looking forward to hear from you, I remain

Sincerely yours,

Marcel Thau
Marcel Thau, M.D.

DIGITAL EQUIPMENT CORPORATION

MAYNARD, MASSACHUSETTS

KENNETH H. OLSEN
PRESIDENT

November 18, 1969

William B. Ingersoll, D. D. S.
1220 Sixteenth Street, N. W.
Washington 6, D. C.

Dear Dr. Ingersoll:

We appreciate your interest in Digital Equipment Corporation, and we appreciate your offer to introduce us to Officers of the Marriott Corporation.

I'm sure you will be pleased to know that we are already talking to some of the technical people from the Hotel, and we are enthusiastic about the possibility of cooperating with them.

Thank you again for offering to help.

Sincerely yours,

Kenneth H. Olsen

KHO:ecc

WILLIAM BROWN INGERSOLL, D. D. S.
1220 SIXTEENTH STREET, N. W.
WASHINGTON 6, D. C.

RECEIVED

NOV 7 1969

KENNETH H. OLSEN

METROPOLITAN 8-1120
8-1177

November 4, 1969

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

Dear Mr. Olsen:

Since I am a stock holder in Digital Equipment Co., American Research and Development Co., and a substantial one in Marriott Corporation, I would like for Digital to influence Marriott to use their equipment.

They are computerized now and are continuing to enlarge upon the system.

Both Mr. J. W. Marriott, Chairman of the Board, and Bill Jr. President, are close friends of mine, and patients. Maybe I could be of some help in getting you together by merely using my name as an introductory beginning.

Both are in Boston very often for business and commuting to their homes in Wolfboro, New Hampshire. Could be they would be interested in visiting your plant.

I hope my interest may be one to benefit all concerned.

Sincerely,



William B. Ingersoll, D. D. S.

DIGITAL EQUIPMENT CORPORATION

MAYNARD, MASSACHUSETTS

KENNETH H. OLSEN
PRESIDENT

November 14, 1969

Mr. Arthur P. Gould
Laidlaw & Company
25 Broad Street
New York, N. Y. 10004

Dear Mr. Gould:

I want to thank you for your letter of October 22, 1969 concerning your client's 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
President

KHO:ecc

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ARTHUR P. GOULD, DIRECTOR
CORPORATE DEVELOPMENT DEPARTMENT

PERSONAL and
CONFIDENTIAL

October 22, 1969

Mr. K. H. Olsen, President
Digital Equipment Corporation
146 Main St.,
Maynard, Mass. 01754

Dear Mr. Olsen:

A situation representing a potential merger opportunity, is described in the enclosed copies of letters and literature from ...

CALIFORNIA OFFICE SYSTEMS CORPORATION

We would very much appreciate hearing from you as to your interest in exploring this matter with us, after you have had an opportunity to review.

Sincerely,


Arthur P. Gould

P. S. The enclosed brochure will described some of the activities of this department recently.

DIGITAL EQUIPMENT CORPORATION

MAYNARD, MASSACHUSETTS

KENNETH H. OLSEN
PRESIDENT

November 14, 1969

Mr. A. Montgomery
Vice President and Treasurer
Michael Michaels & Montgomery, Inc.
Pan Am Bldg., Suite 303 E
200 Park Avenue
New York, N. Y. 10017

Dear Mr. Montgomery:

I want to thank you for your letter of November 5, 1969 concerning your client's 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
President

KHO:ecc

MICHAEL MICHAELS & MONTGOMERY, INC.

PAN AM BLDG., SUITE 303 E
200 PARK AVENUE
NEW YORK, N. Y. 10017
—
YUKON 6-2515

RECEIVED

NOV 7 1969

KENNETH H. OLSEN

M. K. MICHAELS
A. MONTGOMERY

FINDERS AND
MERGER ADVISORS

November 5, 1969

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

Dear Mr. Olsen:

We have selected Digital Equipment as a potential merger candidate for one of our client companies in the softwares field.

In brief, the company offers sales in excess of \$10,000,000; profitable operations; plants in the south and mid-Atlantic areas.

The company is long-established and family controlled. However, management is well on in years. They have developed a young and strong operational team, non-related. There are no surviving children in the business.

If you are interested in serious negotiation, Mr. Olsen, I would appreciate a telephone call rather than correspondence.

Cordially yours,

A. Montgomery
A. Montgomery
Vice President and Treasurer

am/mds

EHS
plse answer

DIGITAL EQUIPMENT CORPORATION

MAYNARD, MASSACHUSETTS

KENNETH H. OLSEN
PRESIDENT

November 14, 1969

Mr. J. H. Baron, President
Amleco Corporation
7701 Normandale Road
Minneapolis, Minnesota 55435

Dear Mr. Baron:

I want to thank you for your letter of October 2, 1969 concerning your 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
President

KHO:ecc

AMLECO CORPORATION

7701 NORMANDALE ROAD
MINNEAPOLIS, MINNESOTA 55435
TELEPHONE 927-8827

October 2, 1969

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

Dear Mr. Olsen:

We have an interest in an electronics firm which has gone into the computer field. The potential of this firm is unlimited because of the patent protection, personnel, and the products already developed. We are possibly interested in the acquisition or merger route.

We would be pleased to discuss this matter with you in strict confidence.

Very truly yours,

AMLECO CORPORATION


J. H. Baron, President

JHB:mu



November 12, 1969

Mr. E. R. Cate
Chief Commodity Branch II
Defense Supply Agency
Defense Industrial Plant Equipment Center-TFM/2
Memphis, Tennessee 38102

Dear Mr. Cate:

Mr. Kenneth Olsen has asked me to reply to your inquiry about computer NC. We are operating a number of computers ourselves in NC applications, and as you observe one of them (the punchpress control) is being used to run just one machine at the present time. We are also developing a standard product to run one or two machines, assist in preparing part programs, and provide supervisory information.

We know of eight computer NC projects now under way using PDP-8L or PDP-8I computers by various machine tool builders, in addition to the Houdaille and Bendix products mentioned by Mr. Olsen in his October NC World interview. Three of these involve the control of a single machine. In one case the computer will speed up the operation of the machine despite a limitation on maximum movement speed imposed by available mechanical components. In the second case, the machine itself can be substantially less complex because of the computer. In the third case, the computer participates in the design of high production tooling, which it then directs its machine to generate. The other five projects all involve multiple machines. In each instance the computer is justified by a multiplicity of distinct advantages; but in each case the particular set of advantages is unique to that machine tool builder.

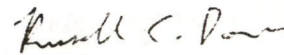
The investment required to take full advantage of computers in NC is substantial, and to date machine tool builders rather than end users have dominated in such efforts. Unless the Defense Supply Agency is able to justify the organizing of an internal group of machining, servomechanism, computer, and programming people to define the project and carry it through, it probably would be more advantageous to work through the machine tool builders themselves. We feel that the technology for many types of computer NC is basically available now, and that the primary barrier to computer NC today lies in the need to establish values and priorities. This in itself is more difficult than it might appear, because some of the benefits of computer NC lie in the area of supervisory information, post-auditing, and management control where little experience with real-time aids is available.

I am enclosing an abstract of a talk I have given at professional society meetings in Connecticut, Illinois, and Missouri. You will see from the questionnaire attached that we ourselves are still searching for answers about relative priorities and preferences of prospective computer NC users.

Because most minicomputer direct NC projects are still in progress, including our own, I am not able to send you any product information. You will, however, find enclosed some information about our Quickpoint system for simple point-to-point tape preparation. You might also want to contact United Computing Corporation, 802 Torrance Blvd., Rindon Beach, California 90277 about their "UNIAPT" system for more complex part program preparation using our PDP-8I computer.

Our Mr. Jim McEwen at our Huntsville office would be glad to discuss your needs at any time. We appreciate your interest and look forward to being of service.

Very truly yours,



Russell C. Doane
NC Product Manager

RCD:am
Enclosures (2)

cc: Jim McEwen, Huntsville Alabama

ABSTRACT

There are three ways to use a computer in Numerical Control:

1. Off-line, to prepare part programs
2. As a part program library octopus
3. To replace conventional NC tool directors

Of all the problems experienced by users of conventional NC, there are a number that can be relieved by one or another computer application:

1. Preparing, editing, checking, and revising part programs
2. Getting the right part program to the machine on time
3. Minimizing program tape handling
4. Prompt reporting of factors affecting productivity

In getting these potential benefits, several difficulties have to be overcome:

1. Computer capabilities and limitations must be known
2. Electronic failure must not be catastrophic
3. Over-all economy must be demonstrated

The first way general-purpose computers were employed in NC was to prepare complex part programs for which manual methods weren't practical: APT and its derivatives. More recently such big computer capabilities have been made available at closer range through time-sharing. Another recent development is the introduction of simpler part program preparation systems using small computers. Mini-computer tape prep systems are designed for simpler jobs, especially 2-axis point-to-point work. Their less than \$20K prices make them economically justifiable for the aid they can give a part programmer in trigonometry, editing, and calculation of repeated patterns, if throughput is high.

The second development, connecting a mass magnetic memory to a number of conventional NC systems by means of a message-switching computer, is now a reality. As with computer aided part programming, the first systems use large computers and are oriented to the biggest applications. As experience shows which features are essential and which are used rarely or are actually a hindrance, smaller systems can be developed with improved economy. Some of the features in question are machine-side editing, bootstrap part programming, tool wear-out prediction, paper tape backup, supervisory reports, management reports, part program preplotting, and conversational interaction.

The use of a small general-purpose computer to replace the special-purpose NC computer itself is still in the development stages. A number of machine tool builders have bought a small computer to build a prototype direct-control system, but few can demonstrate an operating system today. If such a system is to be economical a creative assembly-language computer programmer must work hand in glove with a good servo and logic designer, and both must be sensitive to all phases of shop practice, management as well as machine operation.

This is generally a grow-your-own proposition for the machine builder, and it takes time. The computer manufacturer can help only to the extent that he has a similar design team of his own with some experience behind them.

As with any new technology, a great deal of imagination is required to foresee the direction computer NC will take. If the system designer could anticipate the actual value/cost trade off for each proposed feature, and if the potential customer agreed with the system designer's analysis, one whole generation of developments could be short-circuited. There is not much hope of this much imagination being available. Today computer NC must be justified on the basis of things it does better, with little credit granted for features never before conceived. Fortunately a few gamblers are ready to take a chance on a reasonable proposal without real economic justification, on the expectation that their earlier baptism will put them in a better competitive position later.

One of the reasons you came here was to develop your imagination about how you might use computers in NC applications. If you want to help develop imagination capabilities on the supplier side, you could fill out the questionnaire attached. If someone from your group will stay a half hour after the meeting, I will make a summary so you can see the results too.



DEFENSE SUPPLY AGENCY
DEFENSE INDUSTRIAL PLANT EQUIPMENT CENTER
MEMPHIS, TENNESSEE 38102

IN REPLY
REFER TO DIPEC-TFM/2

28 October 1969

Digital Equipment Corporation
ATTN: Mr. Kenneth Olsen
Maynard, Massachusetts

RECEIVED

OCT 30 1969

KENNETH H. OLSEN

Dear Mr. Olsen:

I read with interest your interview published in the October 1969 NC World. We have particular interest in your statement that your computers are being hooked up directly to machine tools replacing the tape. We have been aware of developments in this area, but have no brochures or other information describing application of small computers to machine tools and would appreciate any materials you may supply us at no cost to the government.

The Defense Industrial Plant Equipment Center prepares procurement specifications covering numerically controlled machine tools. Tools included in our program range from simple applications such as the Strippit punching machines to numerically controlled contouring machines and 3, 4, and 5-axis machining centers. We believe that performance of our mission requires us to keep informed about industry trends. We have noted the recent emphasis on computerized manufacturing facilities, wherein a large number of machine tools are operated through a single large computer, and have seen some mention of mini-computers used for operation of perhaps two machine tools. Your comment on page 7 of the October NC World indicates a possibility that your computer may be part of a control system for a single tool.

We do not, at this point, have interest in information on computers except as they may be applied to machine tool control systems. We do have particular interest in further information about usage of your small computers in this area and look forward to any material you may be able to send us.

Sincerely,

E. R. Cate

E. R. CATE
Chief, Commodity Branch II

ARMSTRONG



Kaufmann
ARMSTRONG BROS. TOOL CO.
"THE TOOL PEOPLE"
Plant and General Office • 5200 W. Armstrong Ave. • Chicago, Ill. 60646, U.S.A.
Phone (312) 763-3333 • TWX 910-221-0957 • Cable "Strongarm" Chicago

November 10, 1969

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

Dear Mr. Olsen:

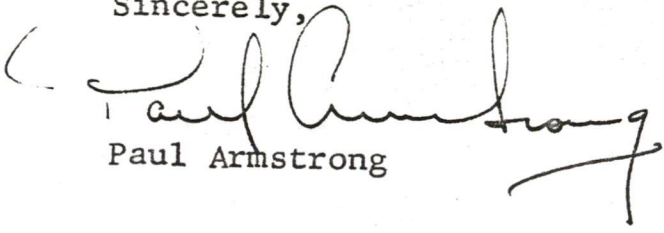
My wife is a very minor stockholder in Digital Equipment Corp. and I read with great interest your letter to shareholders dated October 16, 1969. Because of the nature of my business (machine tool accessories and machine tools) I am somewhat familiar with the work that is being done computerizing machine tools and I know that there is tremendous growth potential in this area.

There is another area that I think may have even greater potential, and I could not resist writing you to discuss the subject--robots.

Possibly you are already well familiar with this subject. If you are not however I would suggest that you give some thought to investigating the potential. It seems to me that this type of equipment would be fairly closely related to what Digital is now doing and as of now there are only two companies who, to my knowledge, are doing any serious developmental work on robots.

Just a thought.

Sincerely,


Paul Armstrong

PA:lj

EASTERN WAREHOUSE
AND SALES OFFICE
177 LAFAYETTE ST.
NEW YORK, N.Y. 10013

SAN FRANCISCO WAREHOUSE
AND SALES OFFICE
67 ELEVENTH ST.
SAN FRANCISCO, CAL. 94103

LOS ANGELES WAREHOUSE
AND SALES OFFICE
1335 S. HILL ST.
LOS ANGELES, CAL. 90015

Mr. Robert P. Goldstein
November 5, 1969
Page Two

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 us. If we do not receive your written agreement within ten days, we shall return to you the material you sent to us.

Very truly yours,

DIGITAL EQUIPMENT CORPORATION



Edward A. Schwartz
General Counsel

EAS:lml

Enc.

CC: Kenneth H. Olsen

AGREED:

Robert P. Goldstein

11-3
Ed Schwartz to answer

RECEIVED

OCT 17 1969

KENNETH H. OLSEN

429 Pacific Avenue
Forest Hills, Pa. 15221

(Phone 412 271-6670)

October 15, 1969

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

Dear Mr. Olsen:


The most sophisticated plans for the control of inventory can go astray at the very beginning. This is the point at which the original information enters the system. The cause may be an errant keypunch, a missed item, a slipped decimal point, or other human shortcomings.

Unfortunately, the systems depend on the same humans who made the errors, to correct them which is an uncertain cure. Without correction, the errors propagate through the data processing job to the output -- rendering questionable results.

Because of the dollar value of inventories, these inaccuracies cannot be disregarded. They are further amplified in importance by enhancing the vulnerability of inventories by masking pilferage.

I have a keen interest in the introduction of new techniques for taking inventory. For your review, I have enclosed a recent patent of mine with background material. Hopefully, this information will be of interest to you, so that I can forward marketing data and recent technical developments.

Sincerely yours,


Robert P. Goldstein

Enc.

4 November 1969

Mr. Gordon O. F. Johnson, President
LOGETRONICS, INC.
7001 Lolsdale Road
Springfield, Virginia 22150

Dear Mr. Johnson:

Many thanks for your interest in Digital. At this time, our requirements do not call for a processor, but I expect we will need one in the next nine to twelve months. We presently run one-color work only and use paper and plastic plates.

For now, we are interested in a quote on your Model LD42 processor.

Please direct this quote and any questions to Mr. Ray Lapan, 897-5111; Mr. Lapan is our Print Shop Group Leader.

Cordially yours,

DIGITAL EQUIPMENT CORPORATION

Nicholas D. LoRusso
Office Services Manager

NDL/dtm

October 14, 1969

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

RECEIVED

OCT 17 1969

KENNETH H. OLSEN

Dear Ken:

John Shane tells me that you have a very fine in-house printing plant with a good deal of automated equipment installed already. He was just back from a plant tour and asked if you were one of our customers. I had to tell him "not as yet, but thanks for the lead."

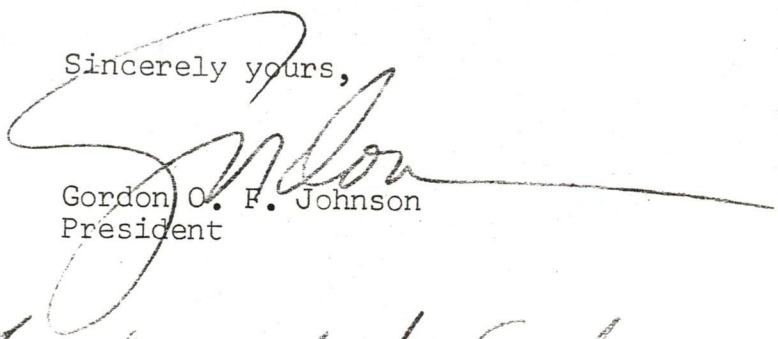
I do not know the size of your plant, but we would certainly appreciate an opportunity sometime to come in and talk with the manager of your printing plant to go over both the benefits of automatic film processing in general, and explain some of the reasons why we outsell both Eastman Kodak Company and another competitor in Minneapolis put together when it comes to graphic arts films.

Enclosed is some descriptive material about LogEflo film processors which you might wish to pass along to the appropriate people who would be concerned with it. Let me know whom we should talk with, and we will follow up from there.

If you ever come down to the Washington area, I would certainly be pleased to have an opportunity to show you first hand some of the strengths behind our products.

Best regards.

Sincerely yours,


Gordon O. F. Johnson
President

GOFJ:sah
Enclosure

cc: J. Shane

P.S. The stories about Sanders Associates and Automatics may be particularly appropriate

	FROM:	RE:	DATE:
Gordon Johnson Logetronics, Inc.	Nick LoRusso	quote/Model LD42 processor	11/4/69
Robert Goldstein	Ed Schwartz	Automatic inventorying apparatus/invention	11/5/69
E.R. Cate Defense Supply Agency	Russ Doane	computer NC	11/12/69
J.H. Baron Amleco Corp.	Ken Olsen	"no" to merger	11/14/69
A. Montgomery Michael Michaels & Montgomery, Inc.	Ken Olsen	" "	11/14/69
Arthur P. Gould Laidlaw & Company	Ken Olsen	" "	11/14/69
William B. Ingersoll, DDS	Ken Olsen	appreciate interest/ talk in progress	11/18/69
Marcel Thau, MD	Jerry A. Courtier	small computers for bio-medical applications	11/19/69
Dr. Grimes Cornell Univ.	Bino Nanni	PDP-10	11/20/69
Robert A. Trumpis & Assoc.	W. Brewster Kopp	management consulting	11/20/69
William H. Blaney, Jr. Rowles, Winston	Ken Olsen	talk Ken gave at Boston Society of Financial Analysts	11/21/69
John S. Howe, Pres. Provident Inst. for Savings	Ken Olsen	negative response to invitation to become Corporator of the Bank	11/21/69
K. P. Lee Univ. of Singapore	R. Dangelmayer Sales Support	Info. on our Computer Lab	11/24/69
Walt J. Sonnevile Oak Manufacturing Co.	Ed Schwartz	availability of components for license	11/24/69
Thaddeus L. Kowalski	Ken Olsen	neg. reply to inquiry about mergers and acquisitions	11/25/69
Alfred Bergman	Ken Olsen	neg. response to offer to aid in bus. ventures and expansion plans	11/25/69