END OF MSGS

DIGITAL MAYNAD

OHAVE MSG FOR YOU

1/4/68

TO TED

FROM HARLAN ANDERSON

WHO ARE MEL EIDE AND NIEL ARNTZ WHO YOU MENTIONED IN YOUR JAN 3 MSG NO 550

2 9////XX WHAT CO ARE THEY WITH

THIS WAS ANSWERED YESTERDAY. THEY ARE FROM THE ANALOG GROUP AT BOEING AERSPACE IN SEATTLE. NEIL IS MELS BOSS. THEY ARE GOING TO BUILD SIX TRANSPORT DELAY SYSTEMS USING OUR MODULES AND FERROSCUBE MEMORIES. I WILL SEND BLOK DIAGRAMS AND NOTES ON THEIR PROBELM TO JON FADIMAN. MEL WILL WANT TO WORK OUT MOST OF HIS PROBLEMSWHILE AT THE PLANT. ON THIS WE WILL ALSO SUPPLY THE MEMORY SYSTEM MODULES REQUIRED. I TRUSTJON WILL BE AVAILABLE. I HAVE DISCUSSED THIS WITH HIM. TED. GA PLS

SORRY I HAD NOT RECEIVED THAT MSG.

I HAEXX HAVE SOME MSGS.

MSG. NO. WC-550

TO H ANDERSON

AND JON FADIMAN

1/3/63

FROM TED JOHNSON

MEL EIDE AND NEIL ARNTZ , HIS BOSS, ARE COMING TO MAYNARD TO SEE FACILITIES NEIL WILL BISIT XXXX BX VISIT CONNELLY AT MIT. MEL WILL SPEND REQUIRED TIME ON 9/10/11 HX JAN TO GO OVER SPECS FOR MEMORY AND DESIGN OF HIS TRANSPORT DELAY SYSTEMS. PLS DEVOTE TIME TO GIVE THEM CNXX CONFIDENCE IN THEIR APPROACH. MEMO COMING DESCRIBING THEIR SYSTEM.

HEA - ltr

January 8, 1963

Mr. Charles W. Adams, President
Adams Associates, Inc.
142 The Great Road
Bedford, Massachusetts

Subject: Cancellation of your Order # 31-03-621

Dear Charlie:

In accordance with recent discussions with you, we have been delaying the shipment of the PDP-1 System that you ordered on your Purchase Order Number 31-03-621 dated April 2, 1962. Before receiving your instructions to delay shipment, we incurred costs associated with the specialized options that were to be on this system. These included the plotter and the logic for the extra typewriters. If you wish to cancel this order or if a mutually satisfactory delivery cannot be established, we will invoice you for the cancellation charges and relieve you of any further liability under the purchase order. The cancellation charges are as follows:

1.	Plotter	$ 500.00
2.	Extra Typewriters	$ 3,000.00

These cancellation charges are based on the following factors:

1. The specialization involved in this equipment.
2. Completion Status
3. Extent of reuseability of the equipment involved.

If you elect to pay these cancellation charges instead of taking delivery on the equipment, title to all partially completed equipment will remain with Digital Equipment Corporation.

We will plan to contact you in the not-too-distant future to determine which course of action is most appropriate. If you have any questions regarding this please feel free to contact me.

Sincerely,

Harlan E. Anderson
Vice President

HEA/mr

HEA file

January 8, 1963

Mr. Charles W. Adams, President
Adams Associates, Inc.
142 The Great Road
Bedford, Massachusetts

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Sincerely,

Harlan E. Anderson
Vice President

HEA/mr

NEA option

January 8, 1963

COPY

Mr. Charles W. Adams, President
Adams Associates, Inc.
142 The Great Road
Bedford, Massachusetts

Subject: Temporary Loan of a PDP-1 Computer

Dear Charlie:

This is to confirm our discussions this morning concerning the temporary loan of the PDP-1 Computer System. We are offering to loan this to you in the interest of further demonstrating its usefulness to the personnel at the Oregon Primate Center. Any use that you can make of it in connection with this may be done at no charge or obligation to either you or the Oregon Primate Center.

In addition, you may use the machine on your other internal projects or rent time to outside organizations. We would expect to be paid for those number of hours that are so used in accordance with whatever hourly rate structure you deem appropriate.

The maximum reimbursement independent of time used should not exceed 1/30th of the purchase price of the equipment involved.

We would like to have you carry fire insurance which would cover the purchase price of the equipment while it is on your premises.

Digital Equipment Corporation may terminate this temporary loan arrangement by giving a thirty-day notice to you that we intend to do so. The title to the equipment of course remains with Digital Equipment Corporation.

The configuration which we now plan to deliver will include the following options:

Item 1.	Basic PDP-1 Machine
Item 2.	Plotter
Item 3.	Multiply and Divide Option
Item 4.	2 Type 50 Mag Tape Units
Item 5.	1 Type 51 Mag Tape Control

If you find the above conditions to be in agreement with what your understanding was, please send me a letter indicating that you wish to go ahead with this temporary loan. Acceptance of this temporary loan will not be construed by DEC accepting delivery on the computer originally ordered by you on April 2, 1962. You may cancel that in accordance with the terms of our letter of January 8, 1963.

Sincerely,

Harlan E. Anderson
Vice President

HEA:ncs

HEA file

January 8, 1963

COPY

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Adams Associates, Inc.
142 The Great Road
Bedford, Massachusetts

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Sincerely,

Harlan E. Anderson
Vice President

HEA:ncs

RH-4-1779

COPY

January 10, 1963

Miss Jachens
Publications Department
Association for Computing Machinery
14 East 69th Street
New York 21, New York

Dear Miss Jachens:

Please find enclosed our Purchase Order No. 22260 and our check for $10 which we are re-sending for the renewal of Harlan E. Anderson's membership in the ACM (including the publications - Journal Communications, and Computing Reviews.

As I mentioned in our conversation this morning, the confusion concerned with the returning of this purchase order and check was the fact that we had not enclosed Mr. Anderson's membership number. Unfortunately Mr. Anderson had misplaced his card and we were hoping the number would be located through your own files.

Thank you for your cooperation.

Sincerely,

(Mrs.) N. Survilas
Secretary to Mr. Anderson

ncs
Enclosures

January 14, 1963

COPY

Mr. Willard H. Foster
Marlboro Road
Sudbury, Massachusetts

Dear Mr. Foster:

Thank you for your letter of January 4th indicating the new consulting and engineering services that you plan to offer. At the present time, Digital Equipment Corporation meets its need for these services by utilizing its own engineering personnel. However, if in the future, we find need for outside assistance in the areas that you have outlined, we would like to take advantage of your offer to more fully describe your services.

Thank you for your interest in DEC.

Sincerely,

Harlan E. Anderson
Vice President

HEA:ncs

HEA

January 17, 1963

COPY

Mr. William Congleton, Vice President
American Research and Development Corporation
200 Berkeley Street
Boston 16, Massachusetts

Dear Bill:

Recently Bob Smith of the Foxboro Company gave me the enclosed resume of Mr. Lind who is a personal friend of his. We do not have any openings at Digital that would be compatible with Mr. Lind's background but I thought I would send his resume to you in case any of the other AR&D affiliates might be looking for a rather senior man with a combination of business and technical experience.

Sincerely,

Harlan E. Anderson
Vice President

HEA:ncs

KEA personal file

January 17, 1963

Mr. Richard W. Sonnenfeldt
General Manager
The Foxboro Company
Foxboro, Massachusetts

COPY

Dear Dick:

In response to your request for a special payment arrangement for the peripheral equipment for the PDP-4 that you are presently proposing to Fitchburg Paper, we would be willing to do the following:

1. Allow special terms to apply to:

   a) Card Reader and Control Type 41-4
   b) Card Punch Control Type 40-4
   c) Magnetic Tape Transports Type 50
   d) Line Printer and Control Type 63-4

   (I understand that all other parts of the configuration are discounted items.)

2. The special payment plan is as follows:

   a) 50% of the list price is due when the equipment is delivered.
   b) Two possibilities occur twelve months after delivery:

      1) The remaining 50% becomes due and payable; or,

      2) The equipment is repurchased by DEC at 25% of the list price. (This assumed that the equipment has been well cared for and means that your cost will have been approximately equal to your rental income.)

c) Selection of either of these two possibilities is at Foxboro option and you need only give us 30 days notice of which intention you plan to follow.

The above terms do not include routine servicing after the warranty nor do they imply any responsibility for programming. I hope that the above is helpful to you.

Sincerely,

Harlan E. Anderson
Vice President

HEA:ncs

WILLARD H. FOSTER

MARLBORO ROAD
SUDBURY • MASSACHUSETTS
HILLTOP 3-6378

4 January 1963

Digital Equipment Corp
146 Main Street
Maynard
Massachusetts

Att: Mr Harlan E Anderson
Exec Vice President

Dear Mr Anderson,

After many years of experience in industrial engineering, production planning, methods engineering, and plant engineering, we are in the process of establishing a private office to provide consulting and engineering services in these and related areas. The enclosed list indicates some of the fields in which we hope to be of service.

Our office is intended to help both the company which is not presently equipped to serve itself in such activities, as well as the company which may wish to supplement its existing staff to handle projects on which it could advantageously use assistance.

A discussion of the ways in which we can be helpful to you and your organization may be mutually beneficial. Please let me know when will be a good time to visit you at your convenience to talk over the possibilities.

Very truly yours,

WH Foster

Willard H Foster

1 Encl.

WILLARD H. FOSTER

MARLBORO ROAD
SUDBURY • MASSACHUSETTS
HILLTOP 3-6378

Engineering Fields in which
W H FOSTER ASSOCIATES can serve you:

Plant Engineering
Feasibility Studies
Appraisals
Production Planning & Engineering
Plant Layout
Facilities Planning
Construction Supervision
Rehabilitations
Contract Maintenance & Services
Engineering Tests & Evaluations
Fallout Protection Studies & Services
Site Analysis & Planning

Methods Engineering
Work Simplification
Production Aids
Industrial Engineering
Pilot Line Development
Materials Handling
Transportation Studies
Cost Studies
Engineering Surveys
Special Projects &/or Studies
Special Reports
Manuals & Publications
Methods Laboratory
Methods Clinic
Methods Training

HEA free

January 18, 1963

Mr. John A. Curtis
Vice President - Marketing
Electronic Associates, Inc.
Long Branch, New Jersey

Dear John:

I want to thank you and the other members of the management team of EAI for the kind attention and courtesies that you extended to Gordon Bell and myself last week when we discussed the Program Data Processors and how they might be used in your plans for marketing hybrid systems.

We certainly appreciate and respect your desire for comparative information about the various digital computer manufacturers that you are considering. Although we are not able to meet your requests completely, I would like to offer the following observations for your consideration. Digital Equipment Corporation has been manufacturing complete computer systems longer than any of the other organizations that I understand you are now considering. Our first PDP-1 was announced and demonstrated on December 1st, 1959. Although this fact by itself does not guarantee success, the technical know-how that is available for attacking new problems as they arise accumulate with time. In addition, DEC has installed a larger dollar value of computers in the field than any of the other companies that you are considering.

Another factor of considerable importance, is that DEC has the widest line of computer systems and options that have been fully developed and field installed of any of the competitors that you are considering. DEC also has significant financial strength which insures stability and continued availability as a supplier. In addition to being a majority owned affiliate of American Research and Development Corporation, we have significant open lines of credit at the National Shawmut Bank of Boston. I would like to encourage you to make whatever checks you deem desirable with either of these organizations about DEC.

COPY

I would like to point out some other reasons why I think you should buy from DEC. As your plans for the hybrid area develop further, I am sure they will require some technical changes and a flexible working arrangement between our respective organizations. In other areas of application, DEC has been a key partner with two major corporations during the past two years. We have demonstrated flexibility in meeting changing requirements and have established good team relationships with both companies. These have involved joint marketing efforts at times, joint design efforts, and cooperation in the area of field service. We think this experience would be helpful in getting a relationship with EAI off to a rapid start.

EAI and DEC have already made a significant investment in this program by virtue of the preparations for the hybrid seminar scheduled for the end of this month at your Princeton Computation Center. The familiarization and orientation that your people are going through in assuring the technical success of this seminar are, indeed, time consuming and costly and all of this effort would be directly applicable to a continuation of the joint effort. In addition, your technical people now know the characteristics of the PDP-1 in detail so that your considerations of our equipment for the future can be complete and objective, whereas until an equivalent amount of experience has been gained with competitive equipment there will always be some uncertainty concerning the essential details.

In the future, new technical developments in hardware and application techniques will become available. We feel an association with DEC would place you in a highly desirable position to utilize some of these. For example, experimental hybrid work at MIT is being done on the PDP-1 computer. In addition, the unique CRT displays manufactured by DEC and available as an integral part of our computer systems open up new machine relationships. Use of the light pen as an input media will allow your customers to communicate with the digital portion of the hybrid system in a convenient experimental way similar to what they are familiar with. We know of no other commercial digital computer with which this is now being done.

DEC computers already have early market acceptance in the hybrid field. This is based on some of the evaluation work that has been done at MIT and also on the fact that we have presently sold a number of digital computers to be used in hybrid systems. These include such EAI customers as Minneapolis-Honeywell, United Aircraft, Lawrence Radiation Laboratory, Foxboro Company, etc.

In discussing my trip to EAI with some of my associates at DEC, there were several questions raised which I would like to pass on to you. First, DEC has a policy of controlling the amount of government business that it does. We do no cost plus fixed fee, cost redetermination, or other similar type work. In addition, we strive to control the percent of our commercial products which are sold to the government so that we qualify for commercial article exemptions under the Renegotiation Act of 1951. Therefore, we would be interested in knowing what portion of the hybrid market is likely to be to the government or government sponsored contracts, subcontracts, etc.

When I was in Long Branch, you offered to comment on your marketing setup and I would appreciate receiving whatever information you would be willing to supply us on this aspect of your work. If you have public annual reports, I would appreciate receiving a copy of the latest one that is available. We at DEC do not feel we have developed a very complete picture of the technical approach that you plan to use in the hybrid area. We anticipate that we will learn many interesting things when our people attend the seminar at the end of the month.

As attachments to this letter, I am including a standard price list for the PDP-1 and its options and the PDP-4 and its options and a statement of our quantity discount policy for computers. Again I would like to take this opportunity to thank you for the interest you are showing in DEC products and to urge you and/or your associates to visit our factory in order to evaluate DEC capability to be an important contributor to your future hybrid plans. I would particularly like to have you meet our President, Ken Olsen.

Regarding your two specific questions, I would like to make the following comment. I consider it unlikely that two PDP-1 computers could be made available without cost for this program. If you decide to go ahead with the PDP-1 for your hybrid plans, continued availability of computer time on a PDP-1 in the Princeton area without cost is a very definite possibility. I will plan to contact you within the next week to try to coordinate a visit to our facility in Maynard.

Sincerely,

Harlan E. Anderson
Vice President

HEA/mr

Enclosures: PDP-1 Price List
PDP-4 Price List
Discount Policy

THE DIGITAL EQUIPMENT CORPORATION

Computer Discount Policy

1. The following equipment and options are covered by this discount policy:

Basic PDP-1 or PDP-4 Computers
Type 25 Real Time Option
Type 17 Magnetic Core Memory Module
Type 54 Magnetic Tape Control
Type 16 Extended Memory Control
Type 18 Extended Arithmetic Control Unit
Type 30D Visual 16 inch CRT Display
Type 32 Light Pen
Type 10 Automatic Multiply and Divide
Type 12 Magnetic Core Memory Module
Type 15 Magnetic Core Memory Extension Control
Type 19 High Speed Channel Control
Type 20 16 Channel Sequence Break System
Type 23 High Speed Data Channel
Type 30 Visual 16-inch CRT Display
Type 51 Magnetic Tape Control Unit
Type 52 Magnetic Tape Control Unit

2. Discounts are computed when the order is placed based on the following table:

N	Discount %
1	0
2	6
3	12
4	18
5 or more	24

where N is defined to be the total number of PDP computer systems that have been ordered in the 12 months preceding the order date plus the number in current order. The delivery date of the systems in the current order must be mutually acceptable and not extend more than 12 months in the future.

3. Orders for Standard Computer Systems and those options listed above may be cancelled at any time up to two months prior to the agreed upon delivery date at no penalty. If such cancellation changes the value of N used in computing the discount percentage, the new discount will apply to all machines by the order so effected.

Computer Discount Policy

Continued

4. The above quantity discounts do not apply to the following options:

Type 40-523 Card Punch Control
Type 41-523 Card Reader Control
Type 50 Magnetic Tape Transport
Type 62 Line Printer and Control
Type 75 Perforated Tape Punch and Control
Type 65 Printer-Keyboard and Control
Type 67 Relay Buffer
All non-standard options

January 28, 1963

The Renegotiation Board
1910 K Street, N.W.
Washington 25, D.C.

Attention: Mr. Alex S. Watt, Chief
Division, Screening and Exemption

Reference: LPI - No.86472/FYE - June 30, 1962

Gentlemen:

Enclosed please find Digital Equipment Corporation Application for Exemption of Standard Commercial Classes of Articles for its Module product line, for its fiscal year ended, June 30, 1962. The Application includes the following Appendices which we believe will be helpful in making your determination.

A	List of Modules contained in each functional class
B	Total Sales by functional class segregated by Sales claimed to be Exempt and Nonrenegotiable Sales
C	Engineering Catalogue
D	Digital Modules Price List

If you should require additional information or explanation, please contact me.

Sincerely yours,

DIGITAL EQUIPMENT CORPORATION

Harlan E. Anderson
Vice President

HEA/lw
Enc: (4)

H. Anderson – Please return to R. Mills

DIGITAL EQUIPMENT CORPORATION

Application for Exemption of Standard Commercial Classes of Articles

Fiscal Year Ended – June 30, 1962

In accordance with Part 1467.31 of the Renegotiation Board Regulations, Digital Equipment Corporation hereby makes application for exemption of Standard Commercial Classes of Articles for its Module line, for the fiscal year ended June 30, 1962.

Digital Equipment Corporation has developed a product line called "Digital Modules" which consists of electrically compatible sets of solid state digital circuits using static logic. These modules are made in three frequencies – 5 megacycles, 500 kilocycles and 10 megacycles. For easy reference, an engineering catalogue, A-705, describing the characteristics of the modules in each functional class is attached as Appendix C. Appendix D is the Digital Modules Price List which shows all modules by frequency and by functional class.

In applying for these exemptions, the digital module products of DEC have been grouped into classes by function, e.g., all flip-flop modules are in one class.

We believe these functional classes of modules meet the tests as set down by the Renegotiation Board for exemption of Standard Commercial Classes of Articles as will become apparent from the following text.

INVERTER CLASS

The articles included in this class are listed in Appendix A. All of these articles are called inverter modules and serve the same two logical functions; i.e., they act as transistor gates for logic levels or logic pulses. Therefore they are of the same kind.

All of the articles in this class are manufactured from the following parts: an aluminum frame or case, a copperclad fiber board, a multiple-pin connector, resistors, capacitors, diodes and transistors. Thus all such articles are manufactured of "the same or substitute materials".

All articles in this class are included in the price list attached except the type 6101 ($192). The price differences between articles are caused by: (a) the number of circuits in a module and (b) the response time of the circuits. For example, the 4105, 4106 and 4102 inverters have 5, 6, and 9 identical circuits each, respectively and they are all of the same response time. Their prices vary in a similar manner, and are $44, $49, and $61. The 4106, 1103 and 6106 each have 6 circuits and their maximum frequency of operation is 500 kilocycles, 5 megacycles, and 10 megacycles. Their prices are $49, $108 and $138; the increased price is caused by the increased cost of the higher frequency transistors. The 6101 contains 13 inverters and is in the same response time range as the 6-inverter 6106; their prices are $192 and $138. Similarly, it can be demonstrated that all differences in price that exist between articles in this class are attributable to measurable characteristics. Moreover, it is evident, from the price list that such differences in price are also market-tested. Thus, it is submitted that all of the articles in the class are sold at "reasonably comparable prices".

The renegotiable and nonrenegotiable sales of the articles comprising the class are set forth in Appendix B, attached. Since the amount of nonrenegotiable sales is more than 35 per cent of the total sales of the articles comprising the class, this application for exemption merits approval.

CAPACITOR-DIODE GATE CLASS

The articles included in this class are listed in Appendix A. All of these articles are called capacitor-diode gates modules and serve the same function of a logical "and" gate of a level and a pulse with an included inverter for additional power. Therefore, they are of the same kind.

All articles in this class are manufactured from the following parts: an aluminum frame or case, a copper-clad fiber board, multiple-pin connector, resistors, capacitors, diodes, and transistors. Thus all such articles are manufactured "of the same or substitute materials".

All articles in this class are included in the attached price list. The price differences between articles are caused by the number of independent circuits and therefore the number of transistors in the article. The 4126 and 4127 ($68 each) contain 6 transistors each, while the 4128 and 4129 ($40 each) contain 2 transistors each. These measurable characteristics explain the price differences among the 4 articles of this class. Moreover, it is evident from the price list that such differences in price are also market-tested. Thus, it is submitted that all of the articles in the class are sold at "reasonably comparable prices".

The renegotiable and nonrenegotiable sales of the articles comprising the class are set forth in Appendix B, attached. Since the amount of nonrenegotiable sales is more than 35 per cent of the total sales of the articles comprising the class, this application for exemption merits approval.

DIODE GATE CLASS

All of the articles in this class are diode gate modules and consist of a number of diode logical gates each followed by an inverter. Therefore, these articles are of the same kind. The articles included in this class are listed in Appendix A.

All articles in this class are manufactured from the following parts: an aluminum frame or case, a copper-clad fiber board, a multiple-pin connector, resistors, capacitors, diodes, and transistors. Thus all such articles are manufactured "of the same or substitute materials".

All articles in this class are included in the attached price list, except for types 4157 ($96), and 6160 ($228). The price differences between articles are caused by: (a) the number of circuits in a module and (b) the response time of the circuits. For example, the 1113, 1115 and 1117 diode gates have 6, 4, and 3 independent circuits respectively, they are all of the same response time and their prices are $123, $100 and $87. The 4113 and 1113 each have 6 independent circuits, but the output rise time of the 4113 is 160 nanoseconds and the output rise time of the 1113 is 50 nanoseconds. Their prices are $68 and $123 respectively; the faster 1113 attains its shorter response time through the use of more expensive, higher frequency transistors. The 6160 which is not described in the catalogue, ~~is both the most complex~~ has 5 diode gates plus 8 inverters and is the highest frequency module in this class, explaining its price of $228. Similarly it can be demonstrated that all differences in price that exist between articles in this class are attributable to measurable characteristics. Moreover, it is evident from the price list that such differences in price are also market-tested. Thus, it is submitted, that all of the articles in the class are sold at "reasonably comparable prices".

m. chick to retype

The renegotiable and nonrenegotiable sales of the articles comprising the class are set forth in Appendix B, attached. Since the amount of nonrenegotiable sales is more than 35 per cent of the total sales of the article comprising the class, this application for exemption merits approval.

FLIP - FLOP CLASS

The articles included in this class are listed in Appendix A. All of these articles are modules which contain one or more flip-flops. (A flip-flop is a bistable circuit that may be constructed from the interconnection of two inverters). Since these articles are all flip-flops they are of the same kind.

All articles in this class are manufactured from the following parts: an aluminum frame or case, a copper-clad fiber board, a multiple pin connector, resistors, capacitors, diodes and transistors. Thus all such articles are manufactured "of the same or substitute materials".

All articles in this class are included in the price list in Appendix D, except the 3202 ($72). The price difference between articles is caused by: (a) the number of flip-flops in a module, (b) the presence or absence of output amplifiers and (c) the response time of the flip-flops. For example, the 4201, 1201 and 6202 are all single flip-flops with output amplifiers and maximum frequency responses of 500 kilocycles, 5 megacycles and 10 megacycles, respectively. Their prices are $69, $133 and $160. This price difference is caused by the ~~greater circuit complexity and~~ increased transistor cost in the higher frequency units. The 4209, 1209 and 6208 are all dual flip-flop modules with output amplifiers and similar input gating structures with the same maximum frequency responses of 500 kilocycles, 5 megacycles and 10 megacycles. Their prices are $79, $168 and $230. Again the price of the higher frequency unit is the greater, but the price of each is also greater than the equivalent single flip-flop module above, due principally to the larger number of transistors needed in the dual flip-flops. The 4213, 4214, 4215, 4216 and 4218 are all quadruple flipflops. These flip-flops have no output amplifiers, and the slight variation in price among them is caused by the variation of the gating structure they contain. They all are priced between $90 and $100. Similarly, it can be demonstrated that all differences in price that exist between articles in this class are attributable to measurable characteristics. Moreover, it is evident from the price list that such differences in price are also market-tested. Thus, it is submitted that all of the articles in the class are sold ar "reasonably comparable prices".

m chick to retype

The renegotiable and nonrenegotiable sales of the articles comprising the class are set forth in Appendix B, attached. Since the amount of nonrenegotiable sales is more than 35 per cent of the total sales of the articles comprising this class, this application for exemption merits approval.

DELAY CLASS

The articles included in this class are listed in Appendix A. All of the articles in this class are called delay modules and they all delay an input pulse an adjustable amount of time. Therefore it is submitted that they "are of the same kind".

All articles in this class are manufactured from the following parts: an aluminum frame or case, a copper-clad fiber board, a multiple-pin connector, resistors, capacitors, diodes, and transistors. Some articles contain delay lines, characterized by an inductance and a capacitance per unit length. Thus all such articles are manufactured "of the same or substitute materials".

m. chick to retype

All articles in this class are included in the attached price list except the type 3302, the price of which is $76. The price difference between articles are caused by (a) the response time of the circuit and (b) the ~~complexity~~ kind of the delay mechanism. For example, the 4301 and 1304 are both analogous to flip-flops that have only one stable state; that is, an input pulse "sets" them to the "one" state and they clear themselves to the "zero" state after an adjustable amount of time, simultaneously generating an output pulse. However, the minimum delay time for the 4301 is 2000 nanoseconds, while the minimum delay time for the1304 is 250 nanoseconds. Also, the output pulse width of the 4301 is 400 nanoseconds while the output pulse width of the 1304 is 70 nanoseconds. The price of the 4301 is $80 and that of the 1304 is $130. This price difference is caused by the increased price of the higher frequency transistors needed in the shorter response time article. The 1310 and 1311 both handle 70 nanosecond pulses, but they are relatively simple modules, with the 1310 containing 5 delay lines and one transistor while the 1311 contains 2 delay lines and 2 transistors. Their simplicity, as compared with the 1304 is consistent with their prices of $91 and $78. The 6310 and 6311 are a similar pair of delay line modules except that they use the 40 nanosecond pulse of the 10 megacycle series and are therefore, more expensive due to the more expensive, higher frequency transistors necessary. Their prices are $114 and $97. The 5310 contains delay lines similar to the 6310, except that it also includes an output pulse amplifier, which none of the other delay line modules do, which explains its higher price of $170. Similarly, it can be demonstrated that all differences in price that exist between articles in this class are attributable to measurable characteristics. Moreover, it is evident from the price list that such differences in price are also market-tested. Thus, it is submitted, that all of the articles in the class are sold at "reasonably comparable prices".

The renegotiable and nonrenegotiable sales of the articles comprising the class are set forth in Appendix B, attached. Since the amount of nonrenegotiable sales is more than 35 per cent of the total sales of the articles comprising the class, this application for exemption merits approval.

CLOCK CLASS

The articles included in this class are listed in Appendix A. All of these articles are clock modules which are used as a primary source of timing in Digital systems. Therefore they are of the same kind.

All articles in this class are manufactured from the following parts: an aluminum frame or case, a copper-clad fiber board, a multiple-pin connector, resistors, capacitors, diodes and transistors. Thus all such articles are manufactured "of the same or substitute materials".

All articles in this class are included in the price list in Appendix D except the types 1401 ($130) and 3406 ($100). The price difference between articles are caused by (a) whether the clock frequency is variable or fixed by a crystal and (b) the maximum frequency of the article. For example, the following are variable frequency clocks: 4401, 1404, and 6401, with maximum frequencies of 500 kilocycles, 5 megacycles and 10 megacycles respectively. Their prices are $72, $89 and $173. The more complex circuit and greater transistor cost in the higher frequency articles explains this price difference. Similarly, it can be demonstrated that all differences in price that exist between articles in this class are attributable to measurable characteristics. Moreover, it is evident from the price list that such differences in price are also market-tested. Thus, it is submitted that all of the articles in the class are sold at "reasonably comparable prices".

The renegotiable and nonrenegotiable sales of the articles comprising the class are set forth in Appendix B, attached. Since the amount of nonrenegotiable sales is more than 35 per cent of the total sales of the articles comprising the class, this application for exemption merits approval.

PULSE GENERATOR CLASS

The articles included in this class are listed in Appendix A. All of these articles are called pulse generator modules and are used to convert external signals to DEC standard pulses. Therefore it is submitted that they are of the same kind.

All articles in this class are manufactured from the following parts: an aluminum frame or case, a copper-clad fiber board, a multiple-pin connector, resistors, capacitors, diodes and transistors. Thus, all such articles are manufactured "of the same or substitute materials".

All articles in this class are included in the price list in Appendix D. The price differences between articles in this class are caused by the width of the output pulse. For example the 3410 and 4410 have output pulse widths of 400 nanoseconds, while the 410 and 1410 have output pulse widths of 70 nanoseconds. It requires more expensive, higher frequency transistors to generate the narrower pulse. The prices reflect this cost, and are $41, $41, $61, and $60 respectively. This shows that the differences in price that exist between articles in this class are attributable to measurable characteristics. Moreover, it is evident from the price list that such differences in price are also market-tested. Thus, it is submitted that all of the articles in the class are sold at "reasonably comparable prices".

The renegotiable and nonrenegotiable sales of the articles comprising the class are set forth in Appendix B, attached. Since the amount of nonrenegotiable sales is more than 35 per cent of the total sales of the articles comprising the class, this application for exemption merits approval.

DEC PULSE AMPLIFIER CLASS

The articles in this class are listed in Appendix A. All of these articles are called pulse amplifier modules, and they are all used for amplyfying and standardizing DEC pulses. Therefore, it is submitted that they are all of the same kind.

All articles in this class are manufactured from the following parts: an aluminum frame or case, a copper-clad fiber board, a multiple-pin connector, resistors, capacitors, diodes and transistors. Thus, all such articles are manufactured "of the same or substitute materials"

All articles in this class are included in the price list in Appendix D, excepting types 601 ($75), 1601 ($130) and 3601 ($43). The price differences between articles in this class are caused by: (a) the number of pulse amplifier channels in a module, and (b) by the output pulse width. For example, the 602 and 1607 are both 70 nanosecond pulse amplifiers but the 602 has 2 channels and the 1607 has 3 channels. Their prices are $100 and $130 respectively, and are consistent with the number of channels they contain. The 4603, 1607 and 6603 are similar triple pulse amplifiers except that their pulse widths are 400, 70 and 40 nanoseconds respectively. The narrower pulse requires the higher frequency, more expensive transistors, resulting in prices of $89, $130 and $164. Similarly, it can be demonstrated that all differences in price that exist between articles of this class are attributable to measurable characteristics. Moreover, it is evident from the price list that such differences in price are also market-tested. Thus, it is submitted that all of the articles in the class are sold at "reasonably comparable prices".

The renegotiable and nonrenegotiable sales of the articles comprising the class are set forth in Appendix B, attached. Since the amount of nonrenegotiable sales is more than 35 per cent of the total sales of the articles comprising the class, this application for exemption merits approval.

DEC LEVEL AMPLIFIER CLASS

The articles included in this class are listed in Appendix A. All of these articles are DEC level amplifier modules and are used to drive DEC standard levels over heavily loaded logic lines. Therefore, they are of the same kind.

All articles in this class are manufactured from the following parts: an aluminum frame or case, a copper-clad fiber board, a multiple-pin connector, resistors, capacitors, diodes and transistors. Thus all such articles are manufactured "of the same or substitute materials".

All articles in this class are included in the price list in Appendix D. The price differences between articles are caused by the difference in the complexity of the modules and the number of channels they contain. For example, type 1681 has 3 channels of one transistor each, while types 1684 and 1685 each have 4 channels of 4 transistors each. The prices are $80, $125 and $128 respectively. This is the principle measurable characteristics that separates the 3 articles in this class.

The renegotiable and nonrenegotiable sales of the articles comprising the class are set forth in Appendix B, attached. Since the amount of nonrenegotiable sales is more than 35 per cent of the total sales of the articles comprising the class, this application for exemption merits approval.

AMPLIFIER - CONVERTER CLASS

The articles contained in this class are listed in Appendix A. All of these modules contain voltage and/or power amplifiers and convert from an external signal to a DEC standard signal or vice versa. Therefore it is submitted that they are all "of the same kind".

All articles in this class are manufactured from the following parts: an aluminum frame or case, a copper-clad fiber board, multiple-pin connector, resistors, capacitors, diodes and transistors. Thus all such articles are manufactured "of the same or substitute materials".

All articles in this class are included in the price list in Appendix D except the following:

Type	Price	Type	Price	Type	Price
1539	$ 112	1971	$ 96	1975	$ 120
1555	200	1972	153	1977	120
1569	245	1973	130	1982	146
1673	134	1974	135	4514	65

The aggregate sales of the above listed modules comprised approximately 25 per cent of the total sales of this class.

The prices of this class of modules ranges from as low as $53 for a 4667 to as high as $245, for the 1569. The 4667 is a simple low-speed amplifier containing 6 channels, each comprising one transistor, 3 resistors, one capacitor and one diode. The 1569 is a very specialized voltage sampler and integrator requiring 4 very low leakage transistors, 4 precision low-leakage capacitors, 6 precision resistors and numerous other more conventional components. The special components are expensive and are reflected in the price. An intermediate-priced unit is typified by the 1540, for $141. This module contains a stable amplifier used in detecting the output from a magnetic core memory array. The signal is amplified, rectified, sliced, sampled with a pulse and the resulting pulse amplified in a pulse amplifier. Similarly it can be demonstrated that all differences in price that exist between articles in this class are attributable to measurable characteristics. Moreover, it is evident from the price list that such differences in price are also market-tested. Thus, it is submitted that all of the articles in the class are sold at "reasonably comparable prices".

The renegotiable and nonrenegotiable sales of the articles comprising the class are set forth in Appendix B, attached. Since the amount of nonrenegotiable sales is more than 35 per cent, of the total sales of the articles comprising the class, this application for exemption merits approval.

INDICATOR DRIVER CLASS

The articles included in this class are listed in Appendix A. All of these articles are indicator driver modules, and are therefore of the same kind.

All of the articles in this class are manufactured from the following parts: an aluminum frame, a copper-clad fiber board, a multiple-pin connector, resistors and in some articles diodes. Thus all such articles are manufactured of "the same or substitute materials".

All articles in this class are included in the price list in Appendix D. The price differences between articles are principally caused by the amount of amplification included. For example, the 1669 and 4689 will each drive 9 incandescent lamps. However, the current limitation of the former is 30 ma, and on the latter is 100 ma. Their prices are $39 and $62 respectively. The greater power amplification in the latter requires a more complex circuit and more expensive transistors. Similarly it can be demonstrated that all differences in price that exist between articles in this class are attributable to measurable characteristics. Moreover, it is evident from the price list that such differences in price are also market-tested. Thus, it is submitted, that all of the articles in the class are sold at "reasonably comparable prices".

The renegotiable and nonrenegotiable sales of the articles comprising the class are set forth in Appendix B, attached. Since the amount of nonrenegotiable sales is more than 35 per cent of the total sales of the articles comprising the class, this application for exemption merits approval.

LINEAR AMPLIFIER AND SLICER CLASS

The articles included in this class are listed in Appendix A. None of these articles have digital signals for input or output; their signals are analog in nature. (An analog signal is one whose amplitude is proportional to, or analogous to, a quantity. A digital signal is one which, by definition, is either present or absent; i.e., "one" or a "zero"). It is submitted that such articles are "of the same kind".

All articles in this class are manufactured from the following parts: an aluminum frame, a copper-clad fiber board, a multiple-pin connector, resistors, capacitors, diodes, and transistors. Thus, all such articles are manufactured of "the same or substitute materials".

One of the articles in this class is included in the price list in Appendix D; the other 3 articles are types 1542 ($122), 1549 ($189), and 1567 ($480). The price differences between these articles are caused by the cost and quantity of the parts therein; a brief description of the 4 articles in this class follows: The 1550($400) is a stable high frequency amplifier with a gain that may be adjusted to be precisely 10; the 1549 ($189) is a dual channel, less stable, lower frequency amplifier used to amplify magnetic tape signals, and the 1567 ($480) is the low-level portion of a high power, high frequency, very stable dc feed-back amplifier. Also in this group is the 1542 ($122), called a "gatable rectifying slicer". It is a relatively simple module which takes the output of the above 1549, rectifies it, slices it, and gates it, passing this resulting signal on to another module type which finally converts it to a DEC signal. The above are the measurable characteristics that explain the price differences. Moreover, it is evident from the price list that such differences in price are also market-tested. Thus, it is submitted that all of the articles in the class are sold at "reasonably comparable prices".

The renegotiable and nonrenegotiable sales of the articles comprising the class are set forth in Appendix B, attached. Since the amount of non-renegotiable sales is more than 35 per cent of the total sales of the articles comprising the class, this application for exemption merits approval.

DIGITAL TO ANALOG CONVERTER CLASS

The articles included in this class are listed in Appendix A. All of these articles are digital to analog converters; that is, they convert a set of digital voltages (each of which may have only one of two values by definition, a "one" or a "zero") into a single analog voltage whose amplitude is proportional or analogous to the digital number represented by the set of digital voltages. Such articles are all "of the same kind".

All articles in this class are manufactured from the following parts: an aluminum frame, a copper-clad fiber board, a multiple-pin connector and resistors. Thus, all such articles are manufactured of "the same or substitute materials".

All articles in this class are included in the price list in Appendix D, except for types 1976, and 1978, $55. each. The price of these modules vary with their complexity and accuracy requirements. The 1976 and 1978 each contain 8 channels, each channel having one principle resistor and each having a tolerance of 0.5%. By way of contrast, the most expensive module in this class, the 1566 ($200), contains one network comprising 30 resistors, each with a tolerance of 0.1% and 8 adjustable resistors for precisely aligning the network. Similarly, it can be demonstrated that all differences in price that exist between articles in this class are attributable to measurable characteristics. Moreover, it is evident from the price list that such differences in price are also market-tested. Thus, it is submitted that all of the articles in the class are sold at "reasonably comparable prices".

The renegotiable and nonrenegotiable sales of the articles comprising the class are set forth in Appendix B, attached. Since the amount of nonrenegotiable sales is more than 35 per cent of the total sales of the articles comprising the class, this application for exemption merits approval.

MODULE ACCESSORIES

A number of accessories are designed to provide maximum flexibility in the various digital applications. Like the modules, these accessories may be repeatedly incorporated into different setups without modification of any kind. They are divided into the following functional classes:

MODULE ACCESSORIES - POWER SUPPLY CLASS

The articles in this class are listed in Appendix A. All of these articles are power supplies, and therefore it is submitted that they are "of the same kind".

All of the articles in this class are manufactured from the following principal parts: an aluminum chassis, transformers, diodes and capacitors. Thus, all such articles are manufactured of "the same or substitute materials".

All articles in this class are included in the price list in Appendix D except for the following:

Type	Price	Type	Price
721	$305	735	$455
729	250	741	290
733	500	773	100

The price differences between articles are caused by: (a) the number of output circuits in a power supply, and (b) the total amount of power delivered. For example, the type 710 is a single 10 volt, 0.5 amp. supply, delivering a maximum of 5 watts of power. The 766, on the other hand, contains 2 independent dual supplies, each with a 10 volt, 0.35 amp output as well as a 35 volt, 4 amp output, for a total output power from the article of 287 watts. The price of the former is $125, and the price of the latter is $510. Similarly, it can be demonstrated that all differences in price that exist between articles in this class are attributable to measurable characteristics. Moreover, it is evident from the price list that such differences in price are also market-tested. Thus, it is submitted that all of the articles in the class are sold at "reasonably comparable prices".

The renegotiable and nonrenegotiable sales of the articles comprising the class are set forth in Appendix B, attached. Since the amount of nonrenegotiable sales is more than 35 per cent of the total sales of the articles comprising the class, this application for exemption merits approval.

MODULE ACCESSORIES - CABLES AND PATCHCORDS CLASS

The articles included in this class are listed in Appendix A. All of these articles are used for making power and/or logic interconnections, and therefore it is submitted that they are "of the same kind".

All of the articles in this class are manufactured from insulated wire and connectors of various types including plugs, banana jacks and taper pins. Thus all such articles are manufactured of "the same or substitute materials".

All articles in this class are included in the price list in Appendix D. The price differences between articles are caused by: (a) the number and size of the wires used and (b) the style of connectors. For example, the patchcords type 911 have banana jacks on their ends that are a gold-plated screw machine product with phosphor-bronze springs. The 912 patchcords have taper pin connectors, an inexpensive part made of sheet metal. The 911 costs $9 for 10 patchcords, while the 912 costs $18 for 100 patchcords. The 750 and 1919 are both 5-conductor power cables, one for bringing power to the laboratory module mounting panel and the other for bringing power to a system module mounting panel. They are $3 each. The 921 and 922 are the test power cables for laboratory modules and system modules, respectively. The 921 has 5 banana plugs for connecting power to a laboratory module, while the 922 has a 22-pin connector for connecting to a system module in addition to having 19 eyelets for connection to the test terminals with type 911 patch cords. The simpler 921 has a price of $10, while the more complicated 922 has a price of $25. The above demonstrates that the differences in price that exist between articles in this class are attributable to measurable characteristics. Moreover, it is evident from the price list that such differences in price are also market-tested. Thus, it is submitted that all of the articles in the class are sold at "reasonably comparable prices".

The renegotiable and nonrenegotiable sales of the articles comprising the class are set forth in Appendix B, attached. Since the amount of nonrenegotiable sales is more than 35 per cent of the total sales of the articles comprising the class, this application for exemption merits approval.

MODULE ACCESSORIES - MOUNTING PANELS

The articles included in this class are listed in Appendix A. All of these articles are mounting panels for supporting the various types of modules. These articles are all "of the same kind".

All of the articles in this class are manufactured from sheet aluminum, and connectors, while some articles also use switches and capacitors. Thus, all such articles are made from "the same or substitute materials".

All articles in this class are included in the price list in Appendix D. The price differences between articles are caused by: (a) the number of module connectors in the article and (b) the type of connector used. For example, the 1903, 1901, 1905, and 1904 are all mounting panels for system modules, and all use the same type of connector. They differ in the number of modules they mount, and therefore in the number of connectors. They will mount 20, 25, 33, and 43 modules respectively, and their prices are $125, $150, $175, and $200. The 1903, 1910, and 1906 each will mount 20 system modules, but they differ in the type of connectors. The 1903 uses a solder type of connection, the 1910 uses a taper pin connection, and the 1906 uses a solder connection wired to an eyelet for use with type 911 patch cords. The taper pin connector is more expensive than the solder connector, and the 1906 assembly that has eyelets wired to a connector is the most expensive. Their prices are $125, $185, and $260, respectively. Similarly, it can be demonstrated that all differences in price that exist between articles in this class are attributable to measurable characteristics. Moreover, it is evident from the price list that such differences in price are also market-tested. Thus, it is submitted that all of the articles in the class are sold at "reasonably comparable prices".

The renegotiable and nonrenegotiable sales of the articles comprising the class are set forth in Appendix B, attached. Since the amount of nonrenegotiable sales is more than 35 per cent of the total sales of the articles comprising the class, this application for exemption merits approval.

MODULE ACCESSORIES - BLANK MODULE CLASS

The articles included in this class are listed in Appendix A. All of these articles are used by DEC customers who wish to assemble their own special module circuit in the standard DEC mechanical frames. It is submitted that they are therefore of the same kind.

All of the articles in this class are manufactured from the following parts: (1) an aluminum frame or case, (2) a fiber board that is either copper clad, blank, or punched full of holes, and (3) a multiple pin connector. Thus all such articles are manufactured of "the same or substitute materials".

All articles in this class are included in the price list in Appendix D. It can be demonstrated that all differences in price that exist between articles of this class are attributable to measurable characteristics. Moreover, it is evident from the price list that such differences in price are also market-tested. Thus, it is submitted that all of the articles in the class are sold at "reasonably comparable prices".

The renegotiable and nonrenegotiable sales of the articles comprising the class are set forth in Appendix B, attached. Since the amount of nonrenegotiable sales is more than 35 per cent of the total sales of the articles comprising the class, this application for exemption merits approval.

DIGITAL EQUIPMENT CORPORATION

Application for Exemption of Standard Commercial Classes of Articles

Fiscal Year Ended - June 30, 1962

List of Modules by Class

Inverter Class:

103	3101	4105	6101
1103	3102	4106	6105
1104	4102	5101	6106
1105			

Capacitor-Diode Gate Class:

4126	4127	4128	4129

Diode Gate Class:

110	1130	4112	4141
1110	1150	4113	4150
1111	1151	4114	4151
1113	3110	4115	4157
1115	4110	4117	6160
1117	4111	4139	

Flip-Flop Class:

201	3201	4213	5202
1201	3203	4214	6202
1204	4201	4215	6208
1209	4202	4216	
1213	4209	4218	

Delay Class:

302	1311	4301	6310
1304	3301	4303	6311
1310	3302	5310	

Clock Class:

402	1406	4401	6401
406	3401	4407	6403
1401	3406	5401	
1404	3407	5403	

Pulse Generator Class:

410	1410	3410	4410

DEC Pulse Amplifier Class:

601	1606	3601	4604
602	1607	3602	5602
1601	1608	4603	6603

DEC Level Amplifier Class:

1681	1684	1685

Amplifier Converter Class:

501	650	1678	1982
1501	667	1682	4152
1502	668	1683	4514
1539	801	1689	4667
1540	1555	1971	4676
1546	1616	1972	4677
1547	1667	1973	4680
1552	1672	1974	4681
1556	1673	1975	4685
1569	1677	1977	4686
4504			

Indicator Driver Class:

1669	1671	1675	4689

Linear Amplifier & Slicer Class:

1542	1549	1550	1567

Digital to Analog Converter Class:

1561	1564	1976
1563	1566	1978

Module Accessories - Power Supply Class:

710	729	735	765
721	730	741	766
722	733	743	773
728	734	749	

Module Accessories - Cable & Patchcord Class:

750	912	922
911	921	1919

Module Accessories - Mounting Panel Class:

901	1904	1909	1915
1901	1905	1910	
1903	1906	1914	

Module Accessories - Blank Module Class:

950	1950	1955
951	1951	

Appendix B

DIGITAL EQUIPMENT CORPORATION

Application for Exemption of Standard Commercial Classes of Articles

Fiscal Year Ended - June 30, 1962

	Sales Claimed to be Exempt	Nonrenegotiable		
	Amount	Amount	% of Total	Total
Modules:				
Inverter Class	$ 181,656.12	$ 133,378.91	42.3	$ 315,035.03
Capacitor-Diode Gate Class	11,991.28	8,668.20	42.0	20,659.48
Diode Gate Class	175,619.81	95,296.25	35.2	270,916.06
Flip-Flop Class	380,860.25	304,007.10	44.4	684,867.35
Delay Class	116,695.66	96,509.82	45.3	213,205.48
Clock Class	25,669.69	22,459.80	46.7	48,129.49
Pulse Generator Class	32,067.76	24,907.54	43.7	56,975.30
DEC Pulse Amplifier Class	65,829.85	58,619.43	47.1	124,449.28
DEC Level Amplifier Class	920.41	3,093.76	77.1	4,014.17
Amplifier-Converter Class	99,347.22	65,977.68	39.9	165,324.90
Indicator Driver Class	21,381.06	15,358.35	41.8	36,739.41
Linear Amplifier & Slicer Class	1,649.00	3,879.50	70.2	5,528.50
Digital to Analog Converter Class	8,745.83	5,748.78	39.7	14,494.61
Module Accessories:				
Power Supply Class	68,553.76	67,688.93	49.7	136,242.69
Cables & Patchcords Class	23,131.27	16,787.96	42.1	39,919.23
Mtg. Panel Class	123,275.20	88,636.50	41.8	211,911.70
Module Blank Class	9,252.41	6,710.42	42.0	15,962.83
	$1,346,646.58	$1,017,728.93		$2,364,375.51

complete set except for catalog + price list.
1/31/63.

January 28, 1963

COPY

The Renegotiation Board
1910 D Street, N.W.
Washington 25, D.C.

Reference: LPI - No. 86472/FYE - June 30, 1962

Gentlemen:

Enclosed please find Digital Equipment Corporation Application for Exemption of Standard Commercial Classes of Articles for its Module product line, for the fiscal year ended, June 30, 1962. The Application includes the following Appendices which we believe will be helpful in making your determination:

Appendices	Description
A	List of Modules contained in each functional class
B	Total Sales by functional class segregated by Sales claimed to be Exempt and Nonrenegotiable Sales
C	Engineering Catalogue
D	Digital Modules Price List

If you should require additional information or explanation, please contact me.

Sincerely yours,

DIGITAL EQUIPMENT CORPORATION

Harlan E. Anderson
Vice President

HEA/lw
Enc: (4)

January 31, 1963

Dr. David Caldwell
Room 26-559
Massachusetts Institute of Technology
77 Mass. Avenue
Cambridge 39, Massachusetts

Dear Dr. Caldwell:

At Mr. Anderson's request I am enclosing one copy each of our PDP-1 and PDP-4 Manuals and Brochures, and our CRT Display Brochure.

Please contact us if further literature is desired.

Sincerely,

(Mrs.) N. Survilas
Mr. Anderson's Office

ncs

February 6, 1963

Mr. James Duva
Operations Application Laboratory
Stop 36
L. G. Hanscom Field
Bedford, Massachusetts

Dear Mr. Duva:

At Mr. Anderson's request I have enclosed Volume 17, No. 12 of the American Psychologist.

Sincerely,

(Mrs.) Survilas
Secretary to H.E.Anderson

ncs

February 13, 1963

COPY

Sandia Corporation
P. O. Box 5800
Albuquerque
New Mexico

Attention: P. M. Alarid

Gentlemen:

Thank you for your Request for Quotation number PMA/VJ 52-3229 dated February 5, 1963, inquiring about equipment to fill the specifications stated in your request.

Digital Equipment Corporation does not manufacture the particular units that you are interested in.

We are sending under separate cover two (2) Digital Module Catalogues that may be of interest to you in the future. If we can be of any further assistance to you at any time, please do not hesitate to contact us.

Sincerely,

DIGITAL EQUIPMENT CORPORATION

Harlan E. Anderson
Vice President

mm

STANFORD UNIVERSITY
STANFORD, CALIFORNIA

INSTITUTE FOR MATHEMATICAL STUDIES
IN THE SOCIAL SCIENCES
Ventura Hall

February 8, 1963

Mr. Harlan Anderson
Digital Equipment Corporation
Maynard, Massachusetts

Dear Mr. Anderson:

Enclosed are specifications for a time-sharing computing system and teaching laboratory that we are planning to establish at Stanford University. We have substantial funds available to finance the laboratory, and we are anxious to proceed as rapidly as possible. If you have an interest in making a proposal on the construction of the component units or the entire system, as described in the enclosed statement of specifications, would you please call either Professor John McCarthy of the Stanford Computation Center (Davenport 1-2300, Ext. 2895) or myself (the same number, Ext. 2970) before February 15, 1963.

If you develop a serious interest in making a proposal on the construction of the system described, it would be desirable if you could send someone to talk to us at Stanford between now and February 25. We hope to make a final decision by March 1, as to which proposal or proposals are deemed appropriate for further, detailed negotiation.

Sincerely yours,

Patrick Suppes
Director

PS/ck

P.S. I look forward to seeing you, or your representative, here at Stanford on Feb. 20 -- per word from John McCarthy.

7 February 1963

SPECIFICATIONS FOR A TIME-SHARED COMPUTING SYSTEM AND TEACHING LABORATORY

Stanford University

The following paragraphs outline the specifications for a computer system to be used by the Institute for Mathematical Studies in the Social Sciences as an experimental teaching laboratory and by the Stanford Computation Center for teaching and research in the on-line use of computers, in time-sharing systems, and in artificial intelligence.

The basic requirement is for a small fast computer and six user stations. The programs for interaction with the different stations will in general be different and some of them may be undebugged. Therefore, the system must provide for the simultaneous and independent interaction of these programs with their users, and no possible error in one of the programs is allowed to interfere with the proper operation of the others.

USER STATIONS

The following facilities must be provided at each user station.

1. A typewriter capable of character-by-character two-way interaction with the computer. The typewriter should not be noisy.

2. A visual display under the control of the computer. The display must be capable of displaying under computer control 20 words of text or an equivalent amount of information in graphical form simultaneously at each station. The time to select and begin a display should never exceed one second.

3. An audio output system. The audio system must be able to select under computer control and play at the selected station any one of 1000 auditory stimuli ranging in length from a phoneme to a sentence. The time required to select an auditory stimulus should be no more than one second, independent of time used to select a visual display. High fidelity performance is required of the audio output system.

THE COMPUTER SYSTEM

The computer system must meet the following requirements:

1. There must be at least 4000 words of program available to interact with each subject exclusive of memory used by the system programs.

2. Apart from system activity and activity spent maintaining displays the computer must be capable of executing the equivalent of 30,000 single-address binary instructions per second, i.e. 5000 per second for each user.

3. The computer must be able to measure the time the subject takes to respond to a stimulus to within .03 seconds when the system is in full time-sharing operation.

4. There must be a secondary storage system for programs and data, i.e. magnetic tape or disk. The subject's sequence of responses and response times are to be stored in a secondary storage system.

5. Equipment must be provided to connect the computer to the IBM 7090 computer through the IBM Direct Data Device.

6. A time-sharing executive system and basic utility programs must be supplied with the computer.

FIGURES OF MERIT

In comparing proposed systems we will consider the following features of the different systems.

1. The quality of the visual display, including freedom from flicker. The size of the display in terms of number of characters and complexity of figures. The flexibility of the display; we require that Russian as well as English characters be displayable and prefer a system allowing arbitrary charcters. Displays which are computer generated at run time will be preferred in general to displays that select from a fixed stock of messages.

2. The speed of the computer system.

3. Possibilities of expansion to more stations.

4. Speed of interaction with the IBM 7090.

5. In the audio system we will emphasize fidelity since the system is to be used for language teaching. Number of possible messages and promptness in selecting them are also important.

6. Ease of use of the system and ease of programming the computer.

7. Guarantees of performance of the hardware and programs.

8. Cost of the different elements of the system.

DELIVERY AND PROPOSALS

1. The basic system including typewriters and the time-sharing system must be in operation by September 1963.

2. The delivery times of the audio and visual display parts of the system are subject to negotiation.

3. We are interested in separate proposals for the computer, display and audio parts of the system and will also consider proposals for the whole system.

4. Proposals must include maintenance of the hardware of the system and the prompt fixing of any bugs that may appear in the programming systems provided.

5. We would like an immediate telephone response indicating the nature of a company's interest. According to the possibilities that present themselves we will decide what detailed proposals are worth waiting for.

February 14, 1963

COPY

Prof. Patrick Suppes, Director
Institute for Mathematical Studies in the
Social Sciences
Ventura Hall
Stanford University
Stanford, California

Dear Professor Suppes:

We have been reviewing your letter of February 8, 1963 outlining your specifications for a time-shared computing system with interest.

I look forward to visiting you on Wednesday, February 20, 1963 at Stanford. We will plan to arrive at your office at approximately 9 o'clock in the morning to discuss your needs further. Accompanying me will be Gordon Bell who is one of our key computer designers in our Maynard facility and Ken Larsen of our Los Angeles office.

Thank you for your interest in DEC and I look forward to meeting with you.

Sincerely,

Harlan E. Anderson
Vice President

HEA:ncs
cc: Prof. John McCarthy
Mr. K. Larsen
Mr. G. Bell

February 25, 1963

COPY

Mr. David H. Lord
National Institute for Research
In Nuclear Science
Rutherford High Energy Laboratory
Chilton, Berkshire
England

Dear Mr. Lord:

I am in receipt of your letter of February 22, 1963, and was sorry to learn that you had not received your order. We received the Request for Quotation from your agents in Washington on December 13, 1962; but through a mix-up, we were not aware that a firm order had actually been placed. This situation has now been cleared up; and we are, this date, shipping your order to the Director of Movements in New York City.

I hope that your project will not be seriously impaired, and we will do our utmost to ensure rapid processing of your new order.

Thank you for your continued interest; and if any need should arise in the future, please do not hesitate to bring it to my attention.

Sincerely yours,

Harlan E. Anderson
Vice President

mm

Associated Industries of Massachusetts

2206 JOHN HANCOCK BUILDING - BOSTON 16

ROBERT A. CHADBOURNE
EXECUTIVE VICE PRESIDENT

TELEPHONE
HANCOCK 6-0033

March 18, 1963

Mr. Harlan E. Anderson
Digital Equipment Company
Maynard, Massachusetts

Dear Mr. Anderson:

Toward the beginning of the year we wrote to you seeking your advice on the desirability of establishing a Washington Information Service. At that time we indicated that we would be in touch with you to ascertain your opinion on this question and willingness to participate in such a project.

Since that time several developments have occurred which indicate more than ever the need for a direct line of communication between the Massachusetts manufacturers and the policy makers in Washington.

At this point we want to emphasize that our plan for a Washington Information Service is not designed to supplant company representatives or engineering liaison that may be maintained for the purposes of meeting contract obligations. Our program supplements such representatives at the broad policy developing sources. It is in effect to birddog developments before they become fact or at least convinced opinion.

For example, the unfortunate NASA controversy which has given competitive areas a toe hold from which to shout their counter claims is a prime example of a situation that could have been pinched off immediately by proper and responsible industrial representation.

We are again asking your consideration of this proposal. Before we make a final decision we need to know how many companies are planning to participate. So will you please let us know if you are interested in this Washington service.

For your convenience we are enclosing copies of our original proposal and suggested schedule of payments together with a sample report from George Hines.

Sincerely yours,

Roger Johnson

Roger Johnson
Economist

RJ:es
Enclosures

WASHINGTON INFORMATION SERVICE

Suggested Schedule of Payments

Companies Receiving Federal Contracts* In Fiscal 61/62 Totalling	Suggested Subscription Rate
$1,000,000 and over	$500
$500,000 - $999,000	300
$100,000 - $499,000	200
$10,000 - $99,000	100

* Based on (1) R & D contract awards of over $100,000 each to individual Massachusetts companies in fiscal 1961, totalling $185,140,000 and (2) procurement contracts awarded of over $10,000 awarded to Massachusetts companies in the first nine months of 1962 totalling $334,130,256.

WASHINGTON INFORMATION SERVICE

2206 John Hancock Building, Boston 16, Massachusetts

I hereby enter my subscription to the Washington Information Service for the calendar year 1963.

Please bill my company for: $500___$300___$200___$100___

Signed _____ Title _____

Company _____

Address _____

_____

DIGEST OF MEMORANDUM FROM GEORGE F. HINES

Part I

What Massachusetts Needs in Washington

It becomes more clear every day that if Massachusetts is to maintain its success in obtaining Defense orders, increase its share of NASA missile and other Federal business, and defend itself against pressure raids for our industrial business through legislation and changed regulations by aspiring and ruthless States, Massachusetts concerns must stand closer together and strengthen their united position by establishing a permanent representative in Washington.

Our Senators and Congressmen respected both in Washington and in our State are among the most capable in the country, but they are not organized to protect and advance the interests of Massachusetts industries. This is a powerful delegation, but it is not being used to best advantage, because there is no agency established to bring them together in Washington behind a program acceptable to everyone.

If Massachusetts industries are to win in the next year what promises to be the greatest campaign between states in the history of industrial America, they should stand together now, control their own destiny, establish their own program and pay their own bills, because state organizations of industries are the strongest common denominator in this situation. Other states are providing their own strong industrial leadership, rallying all public officials and other economic interests to support them, and driving forward successfully.

Some of our Massachusetts companies maintain representation in Washington, but they also must confine their efforts to obtaining company business. There is no one to break ground for them, to carefully watch developments within the ordering agencies, to represent them adequately at the conference tables, to protect their interests and to organize our delegation to Congress to fight for them as a team.

I submit that Massachusetts company representatives in Washington need the organized effort of all Massachusetts industry to help them meet the powerful and effective efforts of our very large competitors.

This year promises to be the most competitive year in Washington in the fight to obtain Federal business. Federal purchasing is scheduled to increase in several directions. Federal research expenditures which this year reached $8.8 billion are expected to reach $10 billion next fiscal year.

The recent national election has stirred up every state, county, city and town as never before to the immensity of Federal purchasing. Most of the Congressmen will fight hard and fiercely to get Federal business. Every state aspires now to become known as a leading industrial state.

The future development and expansion of industry in America will be largely dependent on the new commercial developments arising from the research discoveries in the fields of new military weapons and missiles, now known as the "fall-out or "spin-off" developments. It establishes another reason for someone to be closely watching the situation for Massachusetts industries.

(over)

In the next few years, however, Massachusetts concerns dependent on Government prime and sub-contracts will be subjected to the heaviest competitive pressure ever experienced, and it seems important that every protective step be taken to stay on top and obtain strong support through close organization.

Maintenance of close and harmonious relationships with our Senators and Congressmen is all-important. Only by face-to-face discussion can differences be ironed out, especially before legislative proposals important to Massachusetts industries come up for hearing. Our Senators and Congressmen are always eager to obtain straight opinions from home and have their questions answered directly.

Finally, it has always seemed to me that a letter from Washington every month, containing pertinent information prepared solely for Massachusetts industrialists, could be most valuable. A letter from Washington every month to Industry concerned with developments and trends of personal interest to Massachusetts industrialists rather than interpretations of legislation passed, which will be reported through several other agencies anyway, could be of vital interest to all members.

Part II

Outline of 11 Point Program

If retained as Special Representative in Washington, I propose to establish in Washington a direct service organization which would function as follows:

(1) Act as the Washington Representative of A. I. M. in obtaining and reporting advance information of coming changes in legislation and Federal regulations that would materially affect industry in Massachusetts.

(2) Develop and maintain close relationships between our Senators and Congressmen and A. I. M. for the benefit of members of A. I. M.

(3) Sell the importance of and the facilities offered by Massachusetts industries to the Federal officials that are in control of Federal purchasing.

(4) Protect Massachusetts industry against outside and particularly unscrupulous competition arising in other states.

(5) Assist individual Massachusetts industries when requested by A. I. M. to meet and confer with the proper Federal officials in matters involving Massachusetts industry.

(6) Establish and conduct frequent conferences and meetings in Washington between the Massachusetts delegation to Congress, and important Federal officials with either the directors, committees or staff of A. I. M. on industrial matters.

(7) Provide a monthly letter for publication in Industry magazine about legislative and regulatory developments in the Federal Government that are pending, being considered or promulgated, of particular interest to Massachusetts industrial leaders.

(8) Maintain files of all bills entered in Congress which would directly affect industry, maintain complete files of all Congressional reports and Federal Departmental news releases involving industrial matters, the Congressional Record, and other Federal reference books.

(9) Keep available for members of A. I. M. federal information and data which they might need.

(10) Maintain an office and secretary in Washington, which would be available to service A. I. M. Washington needs, and be available for providing information to A. I. M. members, when introduced by A. I. M. Boston staff.

(11) Advance the best interests of Massachusetts industrial concerns, members of A. I. M. whenever possible and to act to the best of my ability for the Association in special matters, when requested by A. I. M. officials.

George F. Hines
November 27, 1962

MEMORANDUM FROM GEORGE F. HINES

A Glimpse Into The Future of the Massachusetts Electronics Industry

The recent announcement by NASA that it proposes to establish its new Electronics Research Center in the Boston area came as quite a surprise to the Electronics and Missile industries. Leaders in both of these somewhat related and rapidly growing industries knew that a new Electronics Research Center was contemplated, but very few knew that very thorough studies had been underway for months, evaluating various possible locations for it.

Boston was selected on merit, because of the birthplace of American radiation activities at the Radiation Laboratory at M. I. T. during World War II and the subsequent birth and rapid development of many companies in the area manufacturing and providing devices and the research discoveries and applications centering chiefly around M. I. T., Harvard, Tufts, B. U. and Northeastern.

Now that the announcement has been thoroughly discussed by Massachusetts and New England industrial and research leaders, there are many questions that remain to be answered.

Here are some of the answers that come from NASA policy makers in Washington. Some of the opinions must be qualified as present beliefs, and all of course are dependent on Congress approving the project and especially sanctioning the initial expenditure of about $5,000,000 for planning, engineering and land acquisition.

As announced, the project will involve the taking of about 1000 acres, but there is no sharp definition as to the shape of the area, or for that matter its exact size. It might be smaller or it might be larger, depending on the weight of other factors and advantages of each plot under consideration.

The U. S. Engineers regional office at Waltham will undoubtedly be asked to undertake and recommend on all site studies, just as it is expected the U. S. Engineers will be asked to undertake the long-term construction program.

As a matter of policy, the selection of the site will be largely influenced by its proximity both in miles and adequacy of transportation to M. I. T. , Harvard and other institutions of learning in the Boston area who lead in electronics education and related engineering and technical subjects.

It is speculated right now that the selected site will be to the west or northwest of the city, depending on finding satisfactory location and size, adequate public utilities, etc.

It is expected that NASA will receive its go-ahead signal from Congress by May this year. After that the acquisition of the land and the selection of the planning engineers will be rapid. It will be many months later, however, before ground is broken for the construction of the center. Right now, it is estimated that it will be 1965 or 6 before the buildings will be ready for occupancy.

N.A.S.A. is not waiting for the new buildings before getting its program in Boston underway. At headquarters in Washington, planning for setting up the center at temporary quarters in the Boston area is proceeding at full speed.

The new Electronics Center will be concentrated in the fields of missile quidance, controls, communications, tracking and other instrumentation. A permanent office in down-town Boston will be established, away from the research center, presumably to house the N.A.S.A. regional office recently established.

Until functional offices are established in the Boston area, the regional director in Boston will be in charge of all housekeeping planning and negotiations. The new Electronics Research Center according to present thinking will be a permanent key installation of NASA, which will not increase much beyond the 2000 scientists and technicia in the original estimate. It is not comparable with the Apollo installation at Houston, which in its original estimate called for 1000 acres and 2000 employees but which has now increased its demands to 1600 acres and 4000 employees. It may grow larger, but it is only a project center which at some future date could be materially reduced or shut down when the Apollo project is completed. Not so with the Boston center, which according to all expert opinion will be permanent, become increasingly important and continue operations in NASA projects of all types.

N.A.S.A. will be the dominant government research program for the next ten years, according to all authorities, will spend the most money, engage in more projects, and will probably give greater yield of phenomena and developments with commercial and civilian applications than any other program. A large percentage of NASA work will be in electronics and the location of its Electronics Research Center will have a profound effect not alone on the industrial economy of Massachusetts but also on all NASA operations in all of its established centers and large contractors all over the country.

Some of the results that are foreseen from this spectacular new research and industrial growth in Massachusetts are as follows: (1) A much larger portion of smaller prime and sub-contracts, coming out of NASA will be placed in the Massachusetts and New England area. (2) Major contractors, chiefly in the West Coast and Southwest area, holding orders for hundreds of millions of dollars from NASA will establish either branch plants or make connections with established Massachusetts laboratories and companies. (3) Boston as the recognized national center for electronics business of the future will become the great attraction for scientists and technicians, who desire to move forward in their professions, just as Boston is now the recognized great medical center of the country. This environment is bound to attract many advanced students from here and abroad. (4) NASA has no intention of entering into competition for scientific, engineering and technical leadership with other companies, universities or laboratories. Recruitment will be gradual, based on the well recognized fact that the Boston area educational institutions turn out more and better equipped professional men in this field than any other area of the country. By joining and working with our leading schools and universities in a combined program of training and immediate employment upon completion of courses, NASA is confident it will get all of its personnel needs filled as they are needed.

Recruitment of personnel by NASA will be very gradual and will probably not reach the established 2000 figure before 1965. Most positions will be filled from the Civil Service lists, particularly those engaged in technical or housekeeping activities.

Most of the operations in the new Electronics Research Center will be of the in-house types, which means that contracting or the engagement of outside laboratories and companies will be for materials, components and special services. This is not, however, to be rigidly interpreted, because in the fields of research or pioneering study, no one can tell what will be discovered or developed, hence no one can foretell what the future will bring in outside purchasing or services.

N.A.S.A. top planners proceeding at full speed, confidently expect that Congress and the Administration will strongly back this new program, and are enthusiastically looking forward to great achievements from its great new Electronics Center.

This information reflects their statements to me within the past week. As the program builds up, more information of interest to Massachusetts industry will be forthcoming. Until the program gets under way all inquiries about the program or participating in it should be directed to the new regional director in Boston.

In its broadest aspects, the entire Massachusetts industrial economy will be directly benefited by this new government facility when it is in full operation. Two thousand new jobs with approximately $15,000,000 annual new payroll, steady work year after year, results in many new homes being built, with their stoves, heaters and refrigerators, and many new automobiles being purchased. If this research center follows the pattern of experience of the Quartermaster Research Command Laboratories at Natick and the Air Force Electronics Research Center at Bedford, hundreds of millions of dollars of local purchasing of all kinds will come every year from the Laboratories themselves.

The new NASA Electronics Research Center wherever it is to be located in our state will give a tremendous boost to our economy, will strengthen our national and international leadership, but of equal importance give great service and accomplishments to our country.

Louis M. Rusitzky

Investment Officer

Boston Safe Deposit and Trust Company

Boston

navy

Send PDP-4 + PDP-1

manual

V.E.C.

March 21, 1963

Mr. Roger Johnson
Economist
Associated Industries of Massachusetts
2206 John Hancock Building
Boston 16, Massachusetts

Dear Mr. Johnson:

We have quite carefully considered your proposal for support of AIM's Washington Information Service and have decided not to make a contribution.

The type of information to be published by this new service would not be especially useful to our company and that is the basis on which we have concluded not to support it.

We do appreciate your desire to keep us informed, and I am sorry that we cannot justify assisting you in this venture.

Sincerely,

Harlan E. Anderson
Vice President

HEA:ncs

March 22, 1963

Mr. Louis M. Rusitzky
Investment Officer
Boston Safe Deposit and Trust Company
Boston, Massachusetts

Dear Mr. Rusitzky:

At Mr. Anderson's request I am enclosing our PDP-1 and PDP-4 Manuals.

Sincerely,

(Mrs.) N. Survilas, Secretary
H. E. Anderson's Office

ncs
Enclosures

March 22, 1963

Mr. David Mapes
3819 East Avenue
Apartment #39
Livermore, California

Dear Dave:

I was pleased to hear that your last stay in New York produced some interested responses. As you know, we are very enthusiastic about your ideas and want to see you succeed in your efforts.

Because you did not seem to be interested in the possibility of working directly for DEC on a straight salary basis, we have decided that we should not make an offer to you now. At the same time, we do want to help you and would be happy to talk further about a job with us if you would consider it.

Please keep in touch with us to let us know how you are proceeding.

Sincerely,

Harlan E. Anderson
Vice President

HEA:ncs

April 4, 1963

Mr. Vernon R. Alden
29 Park Place
Athens, Ohio

Dear Mr. Alden:

At Mr. Anderson's request, I am inviting you to attend a one o'clock luncheon preceding the Board of Directors Meeting on April 9 at the Digital Equipment Corporation.

Cordially yours,

(Mrs.) N. Survilas, Secretary
H. E. Anderson's Office

ncs

April 4, 1963

Mr. Wayne P. Brobeck
5028 Westpath Terrace
Washington 16, D. C.

Dear Mr. Brobeck:

At Mr. Anderson's request, I am inviting you to attend a one o'clock luncheon preceding the Board of Directors Meeting on April 9 at the Digital Equipment Corporation.

Cordially yours,

(Mrs.) N. Survilas, Secretary
H. E. Anderson's Office

ncs

April 5, 1963

Mr. Kent Terwilliger
Physics Department
University of Michigan
Ann Arbor, Michigan

Dear Mr. Terwilliger:

Enclosed are the price lists and manuals that I promised you on the telephone today. We would be pleased to come visit you in the near future to discuss which PDP-1 options are best suited for your application and how a PDP-1 may be procured through the Atomic Energy Commission contract now being negotiated with Mr. Hack of the New York AEC Office.

Thank you for your interest and let us know if we can be of further help.

Sincerely,

Harlan E. Anderson
Vice-President

HEA/mr

Enclosures: 2 copies of PDP-1 Price Lists
2 copies of PDP-4 Price Lists
6 copies of F - 15
6 copies of Type 30 Literature
6 copies of Type 31 Literature

April 8, 1963

Mr. George S. Ahmerty
The Service Bureau Corporation
Scientific Services Division
635 Madison Avenue
New York 22, New York

Dear Mr. Ahmerty:

In reply to your letter of April 3 to Mr. Anderson, I am enclosing the requested literature on our PDP-4 digital computer.

If you would like further literature on our other equipment please feel free to call.

Sincerely,

(Mrs.) N. Survilas, Secretary
Harlan E. Anderson's Office

ncs
Enclosures

THE SERVICE BUREAU CORPORATION
a subsidiary of IBM
SCIENTIFIC SERVICES
635 MADISON AVENUE, NEW YORK 22, N.Y., TELEPHONE PLAZA 1—4600

4/3/64

Dear Harlan,

Would you kindly send me copies of descriptive literature and and operations manual relative to your PDP-4 digital computer?

Since discussing an employment opportunity in your company last year, I have become connected with SBC in the Applications Development Section.

Although we have "standardized" on IBM hardware (our product is software) I am interested in other computer equipment, such as yours.

The enclosed reprint describes one of the techniques that I've been intimately connected with. Should you desire additional information, I'd be pleased to comply.

Sincerely,

George S. Ahmety

SBC

April 10, 1963

Mr. David H. Lord
National Institute for Research in Nuclear Science
Rutherford High Energy Laboratory
Chilton
Didcot, Berkshire
England

Dear Mr. Lord:

In reply to your letter of April 8 requesting information on a ten flip-flop module, I am enclosing our latest new module brochure and a recent Logic Diagram illustrating the ten flip-flop. Unfortunately, we do not have a formal brochure printed on the ten flip-flop module as yet but will put you on our Distribution List when such brochure is available.

Sincerely,

Harlan E. Anderson
Vice President

HEA:ncs

NATIONAL INSTITUTE FOR RESEARCH IN NUCLEAR SCIENCE

RUTHERFORD HIGH ENERGY LABORATORY,
~~HARWELL~~, Chilton
DIDCOT, BERKS.

TELEPHONE: ABINGDON 1900
OUR REF:
YOUR REF:

8th April 1963.

Mr Harlan E. Anderson
Digital Equipment Corp.
Maynard
Massachusetts
U.S.A.

Dear Mr Anderson,

I believe that you have just bought a new line of DEC Blocks which have up to 10 flip-flops on a board. I would be most grateful if you would send me information on these blocks.

Yours sincerely,

David H. Lord

D. H. Lord

April 11, 1963

Mr. I. R. Schwartz
Sales Manager
Adage, Inc.
292 Main Street
Cambridge 42, Mass.

Dear Mr. Schwartz:

This letter is to confirm approval of the use of DEC's name in your advertisement in the May issue of "Instruments and Control Systems", as requested in your letter of April 10.

We are happy to cooperate with you in this matter.

Sincerely,

Harlan E. Anderson
Vice President

HEA:ncs

Adage INC
INSTRUMENTATION · DATA PROCESSING · CONTROL
DESIGNERS AND MANUFACTURERS

292 MAIN ST., CAMBRIDGE 42
MASSACHUSETTS
UNIVERSITY 4-6620

April 10, 1963

Mr. Harlan E. Anderson
Vice President
Digital Equipment Corporation
146 Main Street
Maynard, Massachusetts

Dear Mr. Anderson:

We think you will be interested in seeing this rough photostat of our latest advertisement, scheduled to appear in the May issue of Instruments and Control Systems.

Note that we mention Digital Equipment Corporation in the third paragraph. Although this hardly constitutes a "testimonial" on your part, we do feel we should have your permission to use Digital Equipment's name.

We are currently building a computer linkage system for your company. This equipment has been ordered on Digital Equipment P.O. No. 23405. The order was placed by Mr. Henry J. Crouse, Purchasing Agent.

Since we are close to the magazine's closing deadline, we would appreciate it if you would call or wire your approval collect. Then, at your convenience, you could put your formal okay in writing.

Thanking you in advance for your prompt attention to this matter, I remain

Sincerely yours,

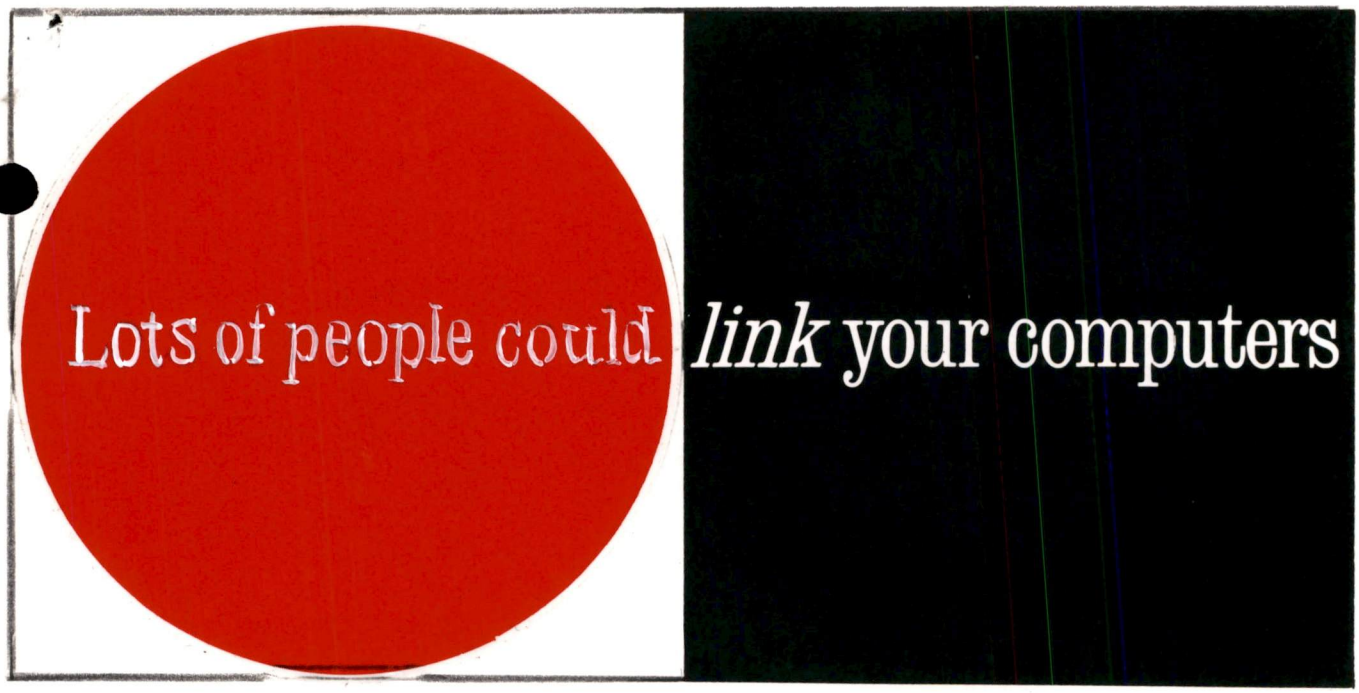
ADAGE, INC.

I. R. Schwartz (J)

I. R. Schwartz
Sales Manager

IRS:af

Enclosure



A hybrid worth its salt — with real power, efficiency, and flexibility — should include more than mere side-by-side operation of your digital and analog machines. It should have the touch of Adage expertise in system integration.

Call on us to help build *your* hybrid facility. We provide unbeatable hardware (all of it) . . . *experience* second to none . . . *a design inventiveness* demonstrated again and again.

Dubious? Ask the people at Grumman Aircraft. Or North American Aviation. Or McDonnell Automation Center. Or Digital Equipment Corporation. Computers we've worked with include REAC 400, IBM 7090, EA231, PDP-1, UNIVAC 1218 . . . to name-drop a few.

Write today for detailed information. Better yet, call I. R. Schwartz, Sales Manager.

Adage INC

292 Main St., Cambridge, Mass. | 1145 East Ash Ave., Fullerton, Cal.

Adage, Inc. welcomes employment inquiries from professional engineers.

April 12, 1963

Mr. Harold Simonds
Army Audit Agency
Waltham, Massachusetts

Subject: Audit of J.P.L. Proposal #30743

Dear Mr. Simonds:

This letter will confirm the verbal information given to you today regarding your request for a pre-contract audit of our proposal #30743 to J.P.L. We would be pleased to provide you an estimated cost breakdown of all non-standard DEC products involved in this proposal. We further warrant that all of our standard proprietary commercial products are included in this proposal at current prices as of the proposal date and that these prices place the government in the most favored position.

We find that government type cost analysis of commercial products is potentially very misleading and can represent a substantial injustice. In particular, the treatment of development costs for the commercial product involved, handling of development costs for related items, amortization base for these costs, amortization of development costs for potential products which do not materialize into marketable items, treatment of sales expenses which are necessary for successful marketing of these products are not adequately recognized in our opinion. Our products are sold in an extremely active market as a result of their being priced competitively. Therefore, we feel that a cost analysis of our commercial products is inappropriate and potentially unjust and accordingly we refuse to grant permission for it.

We believe that it is probable that some misleading conclusions are being drawn from a post contract audit conducted by the Army Audit Agency of our commercial products approximately one year ago. We would like to request a copy of your agency's report prepared by your Mr. Jackson in order that we may discuss these problem areas with you.

Sincerely,

Harlan E. Anderson
Vice President

cc: Mr. John Grace, J.P.L.
HEA:mcs

NER file

April 11, 1963

Mr. David C. Mapes
3819 East Avenue #39
Livermore, California

Dear Dave:

Thank you for the progress report on your project which you sent on March 29. The interest generated is obviously encouraging.

We have two proposals to make to you at this time. First, we would like very much to have you work for DEC as an applications programmer. Specifically, we propose that you become a full-time employee at a salary of $8,500 a year. In this position, we would expect you to work with customers on a variety of computer applications in the fields where you have had considerable experience. The objective would, of course, be to sell DEC computers and to stimulate interest in our equipment. Your background lends itself very nicely to this type of position because you have had an opportunity to work with some unique applications. At the same time, I am convinced that we could offer you the kind of challenge and opportunity that you find stimulating.

A second proposal, which would allow you to continue your project as you want, would involve your establishing your base of operations near DEC in order to rent the PDP-1 and the necessary film reading equipment. At the present time, we do not have an exact time schedule as to when this film reading equipment will be ready for use here. We do intend to install it as soon as our engineering schedule will permit, and we would be pleased to work out an arrangement with you to use it.

We considered the suggestions that you have made, and these two proposals result from this consideration. Our preference would be for you to join DEC, as we are convinced that you could add significantly to our organization.

I look forward to hearing further from you.

Sincerely,

Harlan E. Anderson
Vice President

HEA:ncs

April 22, 1963

Miss Lynn Stein
Auerback Corporation
1634 Arch Street
Philadephia 3, Pennsylvania

Dear Miss Stein:

At Mr. Anderson's request I have enclosed two maps which should enable you to locate Digital Equipment without too much difficulty. Under separate cover I have sent to you seven copies of our module catalog.

If you would like further literature on our products please do not hesitate to contact me.

Sincerely,

(Mrs.) N. Survilas, Secretary
Harlan Anderson's Office

ncs
Enclosures

HEA file

April 24, 1963

Mr. Paul Kane, Credit Manager
The Hertz Corporation
660 Madison Avenue
New York 21, New York

Dear Mr. Kane:

I would like to change the "Signature of Authorized Account Representative" from myself to our Treasurer, George T. O'Dea. Would you see that proper notification is made to your Charge Credit Department.

Thank you for your cooperation.

Sincerely,

Harlan E. Anderson
Vice President

HEA:ncs
Enclosure

4-22-63

Lynn

Miss Stein — Auerbach Co
1634 Arch St
Phil. 3, Pa

Olivetti

14 & 15th May

Milan

Manufacturing

Co

Send map

7 copies — Module

Manuf.

Module Catalog

April 24, 1963

Miss P. Frank
American Airlines, Inc.
633 Third Avenue
New York 17, New York

Reference Acct #8994

Dear Miss Frank:

I would like to change the "Signature of Authorized Account Representative" from myself to our Treasurer, George T. O'Dea. Would you see that proper notification is made to your Air Travel Credit Department.

Thank you for your cooperation.

Sincerely,

Harlan E. Anderson
Vice President

HEA:ncs

HEAfile

April 26, 1963

Dr. Earl C. Fowler
Physics Department
Duke University
Durham, North Carolina

Dear Dr. Fowler:

It was a pleasure for me to spend a few minutes with you last week in Durham discussing various possibilities for use of DEC equipment in your work. When you asked me if I knew anyone in the Medical School who might be a joint sponsor of a computer at Duke, I indicated that I did not. However, upon returning to Maynard, I learned the names of several people at the Duke Hospital who might be candidates for such a relationship with you. Last week DEC had a technical exhibit at a medical convention in Atlantic City where our Mr. Gerry Moore met Dr. Howard K. Thompson, Jr., who is an Associate in medicine at the Duke Hospital. Dr. Thompson further mentioned two other key people at the Duke Hospital. They are Dr. Henry D. MacIntosh, Director of the Cardiovascular Laboratory and Mr. Frank Starmer, Computer Programmer also at Duke Hospital. I have no idea how active the interest of this group is but I thought that you would want to know of their existence if you do not already know about them.

Incidentally, the AEC contract for a blanket order of computers that I mentioned to you was received by our office yesterday and, indeed, is a reality which might be of considerable help to you. One large Midwestern university plans to procure a PDP-1 using this plan but having financial support from several different government agencies. The AEC is displaying unusually fine flexibility in an effort to take advantage of the substantial price discounts available by buying in quantity from us. Please let me know if there is anything further that we can do to be of help to you.

Sincerely,

Harlan E. Anderson
Vice President

HEA:ncs

cc: Mr. N. Mazzarese

May 2, 1963

Mr. John T. Gilmore, Jr.
Vice President
Adams Associates, Inc.
142 The Great Road
Bedford, Massachusetts

Dear Mr. Gilmore:

At Mr. Anderson's request I am enclosing Fortran documentation for Friday Seminar, PDP-4 Buspak, and FORTRAN Coding Form.

Sincerely,

(Mrs.) N. Survilas
H. E. Anderson's Office

ncs
Enclosures

HEA file

May 3, 1963

Dr. Leroy Kerth
Lawrence Radiation Laboratory
Building 50 Room 149
University of California
Berkeley, California

Dear Dr. Kerth:

Thank you for the opportunity to visit you this week and discuss our proposal for a computer. Upon returning to Maynard, I have discussed your application of the Type 131 Data Control Unit. It turns out to be an excellent facility for loading the X and Y coordinates from your CRT Control Unit directly into the computer memory. The Type 131 contains two 18 bit buffers, one for X and one for Y. One mode of operation would be to initialize the location counter and work counter of the Type 131 for the maximum number of XY input pairs that your program was designed to handle. Next the CRT scanning would commence and the XY pairs would fully automatically be placed in memory. This phase could be terminated either by an interrupt through the sequence break system from the CRT scanning or an interrupt from the Type 131 indicating that the maximum number of XY pairs had been received.

In the computer memory the coordinates would be stored in optimum positions for immediate arithmetic processing; i.e., one coordinate in each computer word requiring no unpacking program before processing. The important thing here is that all of the equipment required to make this connection to your CRT is included in the Type 131 Data Control Unit.

I hope that our discussion of the extend mode whereby 65,000 words of computer memory can be addressed help to clarify any questions you may have had in that area. As I mentioned this technique of using indirect addressing has proven to be efficient, easy to use, and fast.

Some of the other advantages to selecting a DEC computer are:

1. Availability of AEC quantity purchase contract and resulting discounts. (This procurement route is proving to be efficient and with minimum red tape).

2. Good Delivery.

3. Availability of cathode ray tube systems as potential additions to your system in the future.

4. Complete module selection available for any type of special devices you may want to construct and attach to the PDP.

5. Availability of an efficient tape control for the IBM 7330 tape drive.

6. Excellent potential interchange of information with other physics groups doing similar work with DEC computers, including possible exchange of programs.

Please let us know if we can provide any further information for you. I am enclosing the current issue of the DECUSCOPE and the DECUS PROCEEDINGS of 1962 since they may be of interest to you.

Sincerely,

Harlan E. Anderson
Vice President

HEA:ncs
cc: Mr. Jerry Russell
Dr. Howard White
Dr. Arthur Rosenfelt
Mr. V.W. Masson, Purchasing Dept.
(Enclosures)

cc: (w/o enclosures)

Mr. K. Larsen
Mr. G. Rise

May 27, 1963

COPY

Mr. Richard Mills
Electrical Engineering Department
Massachusetts Institute of Technology
77 Massachusetts Avenue
Cambridge 39, Mass.

Dear Mr. Mills:

At Mr. Anderson's request I am enclosing ten copies of our latest PDP-6 Brochure.

If you desire further literature of our equipment please do not hesitate to contact me.

Sincerely,

(Mrs.) N. Survilas
Secretary to Mr. Anderson

ncs

June 3, 1963

Mr. Robert A. Cesari
Blair and Buckles
79 Milk Street
Boston 8, Massachusetts

Dear Mr. Cesari:

At Mr. Anderson's request I am enclosing a copy of an article recently published in the Spring Joint Computer Conference Volume 23 entitled, "Associative Techniques with Complementing Flip-Flops" by Edwin S. Lee.

Sincerely,

(Mrs.) N. Survilas
Administrative Department

ncs

June 6, 1963

COPY

Mr. Arnaud de Vitry
Post Office Box 41
Villars-sur-ollon
Vaud, Switzerland

Dear Arnaud:

Recently a Mr. Ronald Payne of Australia was in Boston and said he was interested in the possibility of representing DEC. He is passing through here on an extensive world trip talking to various electronic companies. He indicated that he has some sort of business relationship with Solatron in England and had met with Schlumbergér representatives in Paris. He suggested that Schlumbergér might be a reference concerning his technical and business activities.

I would appreciate any information that you could obtain about him or his organization in Australia. His address is the Ronald Payne PTY, Ltd., 385 Bridge Road, Richmond, Victoria.

I am looking forward to seeing you in a few weeks.

Sincerely,

Harlan E. Anderson
Vice President

HEA:ncs

June 6, 1963

COPY

Mr. Charlton Walter
Air Force Cambridge Research Laboratory
L. G. Hanscom Field
Bedford, Massachusetts

Dear Mr. Walter:

At Mr. Anderson's request I am enclosing the DECAL-BBN Programming Manual by R. J. McGuillin.

Sincerely,

(Mrs.) N. Survilas
Administrative Dept.

ncs
Enc.

COPY

June 25, 1963

Miss Dorothy E. Rowe, Treasurer
American Research and Development Corp.
200 Berkeley Street
Boston 16, Massachusetts

Dear Miss Rowe:

You will find enclosed Mr. Mills letter of February 12 regarding the stock investment agreement by Ben Gurley. Please excuse our negligence in not forwarding it to you sooner; unfortunately, Mr. Anderson had twice forgotten to pass it on to you at the last few Board Meetings.

Sincerely,

(Mrs.) N. Survilas, Secretary
H. E. Anderson's Office

ncs
Enclosure

COPY

July 3, 1963

American Society of Heating, Refrigerating
and Air Conditioning Engineers
UN Plaza at 47 Street
New York, New York

Attention: Publications Department

Gentlemen:

Would you please inform me as to how I can obtain a copy of "Heating, Ventilating, Air Conditioning Guide" which I believe is published by your company. I would also like to know the cost.

Thank you.

Sincerely,

(Mrs.) N. Survilas

ncs

July 12, 1963

COPY

Dr. Thomas Smith
Professor Lawrence Gallaher
Ohio University
Athens, Ohio

Dear Dr. Smith and Prof. Gallaher:

It was a pleasure to speak with you on the telephone yesterday regarding your plans for obtaining additional computer equipment. I have made the travel plans which I mentioned and look forward to meeting both of you on Wednesday, July 17th.

I will be arriving by plane in Columbus at 10:03 a.m. and will drive to Athens. If convenient for you, perhaps we could begin our discussions while having lunch. In any event, I shall call you when I arrive in Columbus and we can complete the plans at that time.

Sincerely,

Harlan E. Anderson

Hea/Ncs.

KEN. file

July 18, 1963

Dr. Vernon Alden, President
Ohio University
Athens, Ohio

Dear Vern:

I was pleased to have the opportunity to see Ohio University yesterday. Needless to say, I was impressed with all the progress that is quite apparent as we toured the campus. I particularly enjoyed meeting with your associates in the afternoon. In the very near future, we will be submitting a proposal to your Computer Laboratory Committee.

I have checked Ken's schedule and find that he is going to be on vacation on August 12th the day you suggested a meeting with the people from the Boston Safe Deposit. I will be here at that time but I think it may be desirable to wait until Ken is also available. I will leave it up to you whether you would rather delay such a get together and I will keep the day open should you want to proceed with August 12th.

Thanks again for the opportunity to visit Ohio University.

Sincerely,

Harlan E. Anderson

HEA:ncs

July 23, 1963

COPY

Mr. Jerry Kennedy
Applied Dynamics, Inc.
2275 Platt Road
Ann Arbor, Michigan

Dear Mr. Kennedy:

At Mr. Anderson's request I have enclosed literature on DEC's PDP-4 and A to D Conversion.

Sincerely,

DIGITAL EQUIPMENT CORP.

Nancy Survilas, Secretary
Harlan E. Anderson's Office

July 24, 1963

COPY

Mr. Frank Conway
Socony Mobile Oil Co., Inc.
150 East 42nd Street
New York 17, New York

Dear Mr. Conway:

Recently, Arnaud de Vitry requested me to send to you our information about the PDP-6 Computer. I am pleased to enclose our Bulletin F61 with this letter.

You may be interested to know that we plan to have the prototype of this unit in operation before the end of this calendar year and to start production deliveries before the middle of next year. We expect prices to begin at approximately $200,000.

Please let me know if we can be of any further help to you.

Sincerely,

Harlan E. Anderson
Vice President

HEA:ncs
Enclosure F61

cc: Dr. Julius S. Aronofsky
Enclosure F61

HEA

July 26, 1963

COPY

Mr. A. R. Edmonds
Department of Physics
Imperial College of Science and Technology
Prince Consort Road
South Kensington
London, England

Your Reference: ARE/PMS

Dear Mr. Edmonds:

Thank you for your letter of 23 July 1963, requesting a copy of our Modules Catalog A-705. I am having it sent to you along with the other information that you have requested.

Shipment can be made on almost all module types within two to three weeks after receiving an order. The exception to this would be the new 4220 series of multiple flip-flops. At the present time, they can be shipped three to four weeks after receiving an order.

Ten megacycle modules are the fastest ones we now have available for commercial production. However, we are developing and preparing for future production modules which will operate at significantly higher frequencies. I will enclose preliminary literature describing those in case they may be of future interest to you.

In case you are not aware, I should mention that Mr. David Lord of the Rutherford High Energy Laboratory has made extensive use of our modules and may have user type information that will be helpful to you.

Thank you for your interest in DEC products and let us know if we can be of further assistance to you.

Sincerely,

Harlan E. Anderson
Vice President

HEA:ncs
Encl: (2) A-705A, (2) C4001, (2) C-8000P

IMPERIAL COLLEGE OF SCIENCE AND TECHNOLOGY
(UNIVERSITY OF LONDON)

DEPARTMENT OF PHYSICS

Head of Department and
Professor of Physics
P. M. S. BLACKETT, M.A., F.R.S.

PRINCE CONSORT ROAD
SOUTH KENSINGTON
LONDON - - S.W.7

Telephone: KENSINGTON 5111

Your Ref.
Our Ref. ARE/PMS

23rd July, 1963.

Mr. Harlan Anderson,
Digital Equipment Corporation,
Maynard,
Mass.,
U.S.A.

Dear Sir,

You will be aware that a large number of your digitalmodules have been employed by Dr. P.V.C.Hough at Brookhaven National Laboratory in a system for the automatic measurement of nuclear bubble chamber film.

We are at this College in the course of constructing a similar system, and are thinking of using your modules in a scheme similar to, but not identical with, that of Dr. Hough. (We shall, for example, be feeding data into a Ferranti Atlas computer rather than an IBM 7094).

I should be glad if you would let me have as soon as possible a copy of your Digital Module Catalogue A-705 and technical data on modules likely to be used in the system. I am particularly interested in the properties of the newer modules (e.g. diode-invertor, capacitor-diode logic, multiple flip-flops).

Information on delivery of standard modules and present availability of blocks faster than your 6000 series would also be welcome.

Yours faithfully,

A.R.Edmonds

HEA
Reminder for
Aug 6th.

July 26, 1963

COPY

Mr. G. F. Graber
Marketing Manager
Applied Dynamics, Inc.
2275 Platt Road
Ann Arbor, Michigan

Dear Gene:

I have checked with our people and found that the date of August 8th that you suggested for visiting us here in Maynard is quite acceptable. We will have available people who are familiar with the electrical interface details between our modules, computers and other type equipment. In addition, we will have available people familiar with the programming aspects of our computers.

I look forward to seeing you at that time.

Sincerely,

Harlan E. Anderson
Vice President

HEA:ncs
cc: R. Best
N. Mazzarese

HKN fib

July 29, 1963

COPY

Mr. R. Verborg
General Manager
Ansco Division
General Aniline and Film Corp.
Binghamton, New York

Dear Mr. Verborg:

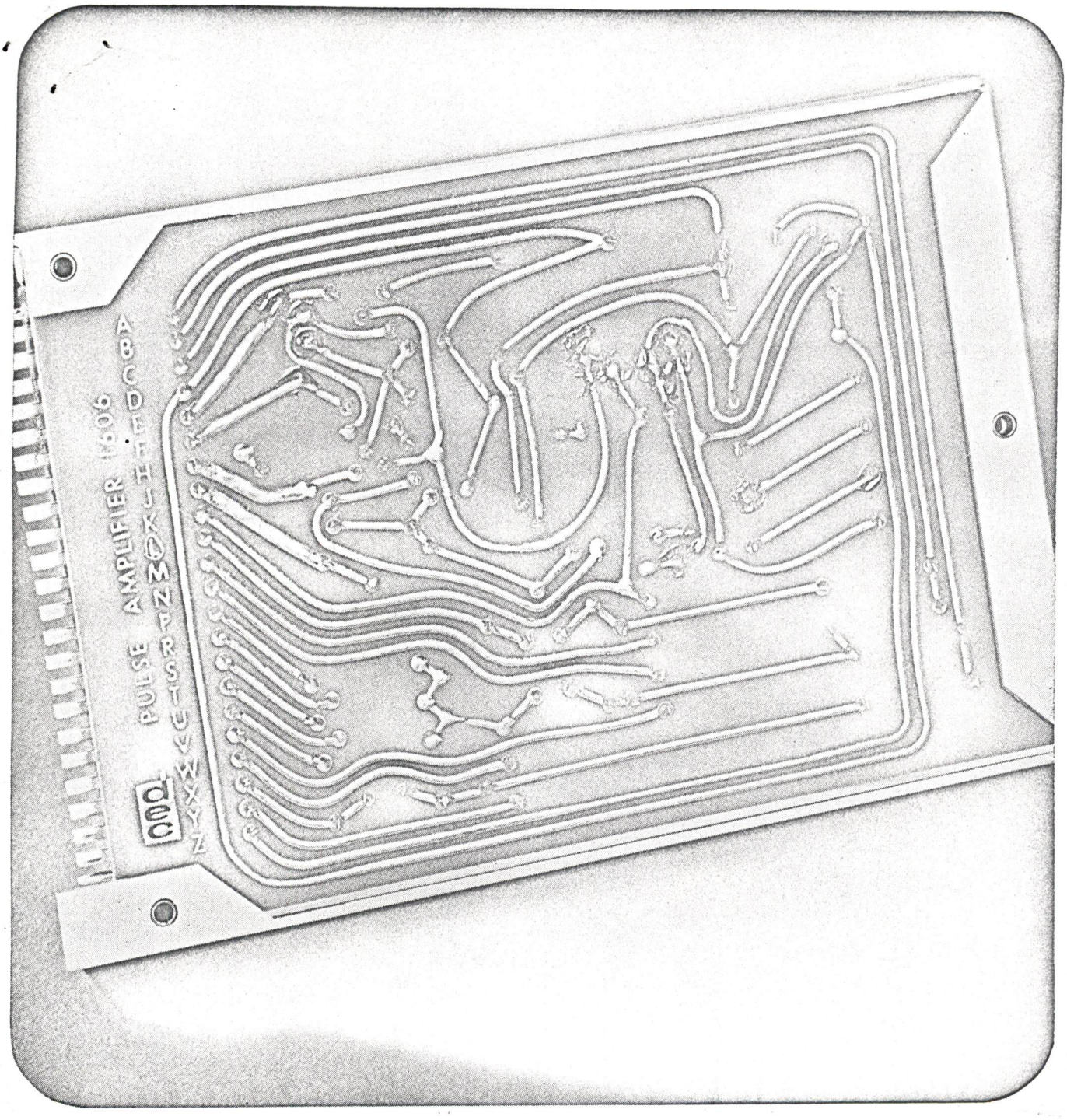
I would like to call your attention to an advertisement in the July 19, 1963 issue of ELECTRONICS magazine published by McGraw-Hill. Your ad shows a very large photograph of one of our printed circuit products with several major defects clearly visible. This association of defects with our registered trade mark in your advertisement is, I believe, not in the best interest of Digital Equipment Corporation, and I would like to request that you discontinue any further use of this advertisement.

I would like to thank you in advance for your consideration of this request.

Sincerely,

Harlan E. Anderson
Vice President

HEA:ncs
Enclosure - Subject Advertisement



Checking your components in braille?

While other methods of non-destructive testing may indicate discontinuity or tiny imperfections, nothing brings proof to your eyes like a radiograph on Ansco Superay® 'H-D' Industrial X-ray film.

This ultra fine grain Class I film makes you Ansco-sure of sending only faultless components to customers.

For the ultimate in image sharpness and high contrast throughout the widest range of X-radiation, use Ansco Superay 'H-D'. Available in economical bulk packaging. Ask your Ansco Representative for technical literature, or write Ansco X-ray Sales, General Aniline & Film Corp., Binghamton, N. Y.

gaf **Ansco**
X-RAY PRODUCTS
GENERAL ANILINE & FILM CORPORATION
BINGHAMTON, NEW YORK

CIRCLE 65 ON READER SERVICE CARD 65

HEA

July 31, 1963

COPY

Mr. Benjamin Gurley, Vice President
Information International, Inc.
Post Office Box 106
Maynard, Massachusetts

Dear Ben:

This letter will confirm our verbal discussion of today concerning your lease with DEC for the PDP-1 prototype, scope, and magnetic tape unit. In view of the fact that DEC has not delivered the scope to you in accordance with the original schedule, we will delay the beginning of the lease period on the entire lease until the scope has been delivered. We also will allow you to continue using the PDP-1 upon which you have been renting time under the contract which expires today. The terms and conditions will be the same as in the existing contract.

The duration and all other time periods in the lease for the PDP-1 prototype will remain the same but the commencement date will merely be delayed. We will send you a letter indicating when the scope has been delivered and payments under the prototype lease will begin. If all of this is satisfactory to you, please initial the enclosed carbon and return to me.

Sincerely,

DIGITAL EQUIPMENT CORPORATION

Harlan E. Anderson
Vice President

HEA:mcs
cc: G. O'Dea
B. Beckman

August 5, 1963

COPY

Mr. F. N. Karmatz
Public Relations Board of New England
29 Columbia Road
Marblehead, Massachusetts

Dear Chip:

This will confirm our discussion concerning retaining Public Relations Board of New England to assist DEC. We would like to proceed in accordance with your proposal of July 29, 1963. The effective date will be August 1, 1963 and we agree to pay a monthly retainer fee of $500.00 after submission of proper invoices to us. We understand that this authorization can be cancelled at any time after six months by giving thirty days notice with no further payments.

We look forward to the assistance that this arrangement will be providing to us and hope it works out as anticipated.

Sincerely,

Harlan E. Anderson
Vice-President

HEA/mr

cc: Mr. Jack Atwood, DEC
Mr. Richard Mills, DEC

August 9, 1963

COPY

Mr. Isamu Hosoi, Chief of Import Section
Rikei Trading Company, Ltd.
12, 2-Chome, Shiba Tamura-Cho
Minato-Ku, Tokyo

Dear Mr. Hosoi:

I have telephoned Dr. Hayashi and have an appointment to see him at MIT on Monday, August 12 to discuss the Tokyo University computer requirements.

I now plan to arrive in Tokyo on 22 August at 23:55 on Northwest Airlines Flight 7. My travel agency had made reservations for me at the Tokyo Hilton Hotel before your letter arrived so please cancel the reservations at the Imperial Hotel.

I will look forward to meeting you at the Tokyo Hilton on Friday morning at whatever hour is necessary to meet with customers. You can leave a note for me Thursday evening indicating what time you would like to begin and any other details of the arrangements.

Thank you for your thoughtfulness in making these arrangements and I anticipate an interesting and beneficial trip.

Sincerely,

Harlan E. Anderson
Vice President

HEA/mr

HEA

COPY

August 12, 1963

Mr. David Osterhout, Chief
Division of Nebraska Resources
Box 4666 1221 J. Street
Lincoln 9, Nebraska

Dear Mr. Osterhout:

Thank you for your letter of July 26, 1963 inviting our inquiry into Nebraska as a possible location for a manufacturing operation. DEC has no plans for establishing domestic branch plants at this time. However, we appreciate your interest and will keep your letter on file in case our future plans change in this respect.

Sincerely,

Harlan E. Anderson
Vice President

HEAmcs

HON. FRANK B. MORRISON
GOVERNOR

PEARLE F. FINIGAN
DIRECTOR DEPT. OF AGRICULTURE

DAVID OSTERHOUT
CHIEF

State of Nebraska

Division of Nebraska Resources
BOX 4666 1221 J St.
Lincoln 9, Nebraska

July 26, 1963

Mr. Harlan E. Anderson, Exec. Vice President
Digital Equipment Corporation
146 Main Street
Maynard, Massachusetts

Dear Mr. Anderson:

INDUSTRIALISTS LIKE IDA. Nebraska's new Industrial Development Act (I. D. A.) which permits counties and municipalities to issue Revenue Bonds for the construction of buildings and the purchase of sites and equipment, has been used to finance eight new plants in the past year.

Our Industrial Revenue Bond Financing Program can be used for any type manufacturing operation. So far, manufacturers of the following products have used this attractive program: Missile components, machine bearings, drugs, business forms, food products, kitchen cabinets and meat packing.

Another valuable advantage, that Nebraska has for offering you a low-cost operation, is our productive labor force. Recently, an official of a company that has several operations in the United States and foreign countries, made the statement that their operation in Nebraska out-produced their other plants, using the same type equipment, methods and procedures, by twenty-five to thirty-five percent.

We shall be pleased to provide you with additional information concerning our Revenue Bond Financing Program, labor supply, productivity and other factors that make up our outstanding climate.

The Division of Nebraska Resources is at your service and your inquiry will be held in strictest confidence.

Sincerely,

David Osterhout

David Osterhout, Chief
Division of Nebraska Resources

DO:fr

HEA

August 16, 1963

Mr. Frank Verzuh
180 Commonwealth Avenue
Boston 16, Massachusetts

Dear Frank:

It was good to talk to you today and learn of your full-time consulting activities. I am having sent to you technical literature on all four of our computers. I would like to invite you out to see some of these machines and our facilities here in Maynard. It is about a forty-five minute to a hour drive from Boston. When coming out Route 2 turn left on Highway 62 and continue for about five miles. Our factory is located right on Highway 62 just beyond the business district. Although I will be away in the immediate future, Ken Olsen will be back from his vacation on Monday the 26th of August and would be pleased to see you I am sure. I will give him a copy of this letter so that he knows you called and if you telephone him when you are ready to come, I am sure he will be happy to show you around.

Sincerely,

Harlan E. Anderson
Vice President

HEA:mcs
Enc: Brochures F11, F41, F51, & F61

COPY

COPY

September 10, 1963

Mr. Howard A. Rogow
Acting Director
PERT Orientation and Training Center
Bolling Air Force Base
Washington 25, D. C.

Dear Mr. Rogow:

In reply to your invitation of September 4th inviting Mr. Anderson to attend your September 25th PERT Presentation, Mr. Anderson feels that our computers are not used for business purposes where PERT would be appropriate and consequently will not be attending the presentation.

Thank you for your invitation.

Sincerely,

(Mrs.) N. Survilas, Secretary
Harlan E. Anderson's Office

ncs

PERT ORIENTATION AND TRAINING CENTER
BOLLING AIR FORCE BASE
Washington 25, D. C.

4 September 1963

Mr. Harlan E. Anderson
Vice President
Digital Equipment Corporation
146 Main Street
Maynard, Massachusetts

Dear Mr. Anderson:

The PERT Orientation and Training Center at Bolling Air Force Base is an intergovernment facility established under the auspices of the Department of Defense and other participating Federal agencies, including the Bureau of the Budget, to assist key management personnel in both government and industry in establishing a systematic approach to the decision-making process. Special orientation is provided in the program/fund management techniques, including PERT, PERT/Cost, Program Definition, and Line-of-Balance, utilized in reducing time and cost slippages.

The one-day program scheduled on page six of the POTC Course Bulletin and described in the enclosed course description is particularly designed for industrial representatives of corporate and program management. A POTC technical training program is also being made available on a limited basis, due to limited classrom space, to representatives of industrial organizations with a contractual requirement to apply PERT Cost for government and corporate management use.

You or your representative are cordially invited to attend the one-day presentation scheduled for September 25th. It will be appreciated if you will advise us not later than September 19th if we may look forward to your participation in this program.

Should the date of September 25th be inconvenient, please let us know if we may make a reservation for you to attend one of the other programs scheduled on page six of the POTC Bulletin.

Sincerely,

HOWARD A. ROGOW
Acting Director

2 Atch
1. POTC Bulletin
2. Course Description

9/10/63

September 18, 1963

COPY

Mr. David H. Lord
National Institute for Research in Nuclear Science
Rutherford High Energy Laboratory
Chilton, Didcot, Berks.
England

Dear Mr. Lord:

I have received your letter of 11 September requesting more detailed information on the Type 1547 and 1556 modules. The 1547 has now been replaced by the Type 1572 module.

These are interchangeable in systems since they have the same pin connections. The improvements are in the better common mode rejection characteristics and also better response to transients. Since there is no technical specifications available for this unit yet, I am enclosing with this letter a copy of the circuit schematic.

The Type 1556 slicer circuit has now been obsoleted in our line and we recommend use of the Type 1570 unit which is described in the second edition of our Module Catalog (A-705A). This is different from the 1556 in that it contains a flip-flop within the module for remembering the result of the test. The slicer portion of this module is very fast as you can note from the specifications but yet one has a digital signal available at the output without loading down the input. I will enclose with this letter a copy of the data sheet which describes this unit.

Under separate cover I am having sent to you two copies of the current version of our Module Handbook. If you need additional copies please feel free to contact me.

Sincerely,

Harlan E. Anderson
Vice President

HEA:ncs
Enclosures: 4200 series module booklet
Circuit Schematic Type 1572
Data Sheet 1570

NATIONAL INSTITUTE FOR RESEARCH IN NUCLEAR SCIENCE

RUTHERFORD HIGH ENERGY LABORATORY,
~~HARWELL,~~ Chilton,
DIDCOT, BERKS.

TELEPHONE: ABINGDON 1900
OUR REF:
YOUR REF:

11th September 1963.

Mr Harlan E. Anderson
Vice President
Digital Equipment Corp.
Maynard, Massachusetts
U.S.A.

Dear Mr Anderson,

I would be very grateful if you could send me rather more detailed information on the type 1547 and 1556 blocks, than is given in your catalogue. It would also be of great assistance to me if you could supply me with a further copy of your Module Catalogue A-705. We find this such a useful volume that there are always several of us wanting to look at it at once.

Yours sincerely,

David Lord

D. H. ~~Lord~~

Eglin

September 18, 1963

COPY

Mr. David H. Lord
National Institute for Research in Nuclear Science
Rutherford High Energy Laboratory
Chilton, Didcot, Berks.
England

Dear Mr. Lord:

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Sincerely,

Harlan E. Anderson
Vice President

HEA:ncs
Enclosures: 4200 series module booklet
Circuit Schematic Type 1572
Data Sheet 1570

HKO

September 23, 1963

COPY

Mr. Jack M. Behrman
Assistant Secretary of Commerce
Domestic and International Business
Washington 25, D. C.

Dear Mr. Behrman:

I would like to thank you for your reply of September 13, 1963 to Mr. Olsen concerning the United States Business Machine Show in Tokyo. I have noted from the information that electronic computers are specifically excluded and therefore we will not be able to participate; however, we would appreciate it if our company could continue to receive information about other opportunities similar to this that might arise in the future.

Sincerely,

Harlan E. Anderson
Vice President

HEA:ncs

HEA

September 23, 1963

Mr. Herbert Socks
Exhibits Participation Division
Office of International Trade Promotion
U. S. Department of Commerce
Bureau of International Commerce
Washington 25, D. C.

COPY

Dear Mr. Socks:

Thank you for your September 4 reply to Mr. Olsen's request for information about the Advanced Electronic Components Exhibit. Although our products do not properly fit in the definition of items to be exhibited, we greatly appreciate your sending the information. We would be very interested in continuing to receive information about other exhibitions which may be more appropriate for our products. We would be particularly interested in exhibits including electronic computers, instrumentation for physics research, electronic testing devices, and scientific information handling systems.

Thank you for sending us the information and please send us additional information as it becomes available.

Sincerely,

Harlan E. Anderson
Vice President

HEA:ncs

KHo

September 23, 1963

COPY

Mr. Jack M. Behrman
Assistant Secretary of Commerce
Domestic and International Business
Washington 25, D. C.

Dear Mr. Behrman:

I would like to thank you for your reply of September 13, 1963 to Mr. Olsen concerning the United States Business Machine Show in Tokyo. I have noted from the information that electronic computers are specifically excluded and therefore we will not be able to participate; however, we would appreciate it if our company could continue to receive information about other opportunities similar to this that might arise in the future.

Sincerely,

Harlan E. Anderson
Vice President

HEAmcs

THE ASSISTANT SECRETARY OF COMMERCE
WASHINGTON 25, D.C.

September 13, 1963

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

Dear Mr. Olsen:

You are invited to join other firms in your industry in a concerted campaign substantially to increase the sale of your products in our second largest, and still fast-growing, foreign market--Japan.

You are urged to study the enclosed Export Market Guide which confirms that there may be a special opportunity for increased sale of your products in Japan. It is because we are anxious to capitalize on such opportunities that we have decided to sponsor a United States Business Machines Show and promotional campaign at the United States Trade Center, Tokyo, January 21 to February 7, 1964.

We offer a complete promotional "package". We provide at our expense--among other things--exhibit design and construction, a widespread publicity campaign in Japan to attract buyers of your products to the United States Trade Center, customs entry and handling service, and the prestige value of showing your products in the United States Trade Center.

We ask that you pay the cost of shipping your display products to Yokohama, Port of Entry, and that you contribute a portion of the exhibit costs--$400.00 if you plan to man your exhibit through your Japanese agent, but only $100.00 if you agree to send a decision-making representative from your company in the United States. We're very confident that Japan is a market for your product and thus we will agree to return to your plant in the United States at our expense any display merchandise which you are unable to dispose of in Japan.

In the interest of increasing your own business and in direct support of our National Export Expansion Program, I hope you will take advantage of this trade development opportunity. The return of the enclosed self-addressed card will bring you full details.

Sincerely yours,

Jack N. Behrman

Jack N. Behrman
Assistant Secretary of Commerce
Domestic and International Business

Enclosure:
Export Market Guide
Postal Card

September 24, 1963

COPY

Mr. Robert B. Forest
Datamation Magazine
Charter House Motel
Cambridge Parkway
Cambridge, Massachusetts

Dear Mr. Forest:

I enjoyed talking with you today and have made arrangements for a demonstration of the PDP-1 time sharing system at BBN for 10 a.m. on Friday morning. There office is located at 50 Moulton Street in Cambridge. This is a few blocks from Route 2 on the way to Belmont. If you go by taxi, it is one block north of Concord Avenue just west of the Fresh Pond traffic circle. Please ask for Shelly Boylen when you arrive. I'm sorry that I won't be able to be with you, but I hope you enjoy the demonstration.

Sincerely,

Harlan E. Anderson

HEAsncs

H. E. ANDERSON

Dave

Don't bother to type up

however.

H. E. G.

DIGITAL EQUIPMENT CORPORATION

(1)

H.E.G.
9-26-63

Kil V Adams

Teletype — Receiving to

- Changing from Transmitting
- Delay needed.
- Letter shift. ~ is first character after changing.

Difficulty in delaying the repair.

Don Smith very good.

Main Frame

2 errors on exclusive or during contest.
Phony interrupts once in a while during contest.

Preventive Maintenance

June 25 – Mag Tape.

Request for programming data was not handled well.
Delay in getting green covered book on Type 57
Error detection description could be better
Told to ignore parity errors while writing since none.
Adams procedures for error handling.

Insert later.

Micro Tape

Needs to be described for programming of individual tape inst. in addition to subroutines.

July 11 — 2300 parity errors during product.
12 – Called Steve Lambert
17th – Steve arrived ← Ken Senior arrived.
File protect ring out of place prevented backspacing while reading.
RAMP does not do a good job of testing to error indication

(2)

Kie

Roland did a tremendous job.
Ken Senior fixed clock on 2 hour basis.
" " was trying
Steve left impression that Kie programs were wrong.
Do DEC people make entry in Kie's log.

Jack Gilmore

About Aug ~~1 Sept~~ — Jack Shidd & Bob Beckman visited

Complete set of prints were brought down by Roland Boisvert for the first time.

Can any improvement be made in time delay of responding to a service call. 3 or 4 hours now

---

This last week-end Teletype Reader, End of File.
Ron Wilson — Fixed everything except end of file. (most important)
Don Busic & Ken Senior showed up
Design error in end of file. — Still not fixed.
needs to recognize blank tape before & after end of file mark.
Roland did 22 changes. Difference

Drives have to be cleaned every three to four hours.

Lost nine records out of 1 million this week.

Will DEC have a machine with MicroTape & and IBM tape?

IBM does not detect end of file on DEC tapes.

---

3 Topics

1. Micro Tape Changes per Charlie Adams
2. Conversion of tapes.
3. 1050 Competition.

Micro Tapes.

a.) Move the tape without tying up the control — Interrupt on each block. Can this be added?

b.) Data interrupt block transfer would be nice if not too expensive.

c.) Two levels of interrupt.

Turn off interrupt system. Teletype interrupts must be serviced.

Multiple level interrupt.

About 1/2 of the time is required to service reading or writing of micro-tape.

Cannot run both micro-tape controls at the same time.

Double program interrupt or data interrupt would help micro-tape.

IBM 026 with transceiver - Could we interface to this at the computer -

Could we sell them the tape punch which has been cannebalized. (5 hole)

Dan Smith could call John Hemistone.

MSG NO. M-411

TO KEN LARSEN

FROM HARLAN ANDERSON

REF. TWX NO. SFO-174

INFORMATIN ON THE 3200 HAD BEEN RELEASED OCTOBER 2, 1963 . YOU PROBABLY HAVE A BETTER CHANCE OF GETTING IT THAN WE DO

END OR GA PLS JAMIE

KEN LARSEN IS IN BERKELEY ON PROPOSAL WITH JOHN KOUDELA BUT I WILL ATTEMPT TO GET INFO. ON SHELL DEVELOPMENT FOR J ARTHUR HALL TODAY.

TU EN OR GA PLS

END TU BETTY END JAMIE

O

TWX

TO: Ken Larsen

FROM: Harlan Anderson

Re: TWX No. SFO 174

Information on the 3200 hadbeen released October 2, 1963. You probably have a better chance of getting it than we do.

end

O

DIGITAL MAYNAD

DIGITAL EQPA

MSG NO. SFO -174

DEC PALO ALTO TO DEC MAYNARD 10-1-63 5.15 PM

ATTN..... HARLAN ANDERSON AND GORDON BELL

SUBJ..... REQ. INFO. ON CDC 3200

GEORGE MICHAEL OF RADIATION LABORATORY LIVERMORE TELLS ME THAT CDC INTENDS TO HAVE A 3200 AT THE FJCC. THE 3200 IS EXPECTED TO BE IN THE SAME PRICE RANGE AS OUR PDP-6. CAN YOU GIVE ME ANY INVO. ON THE 3200 /Q/ GEORGE THINKS IT IS A SCALED DOWN VERSION OF THE 3600.

THANKS

KEN LARSEN

DIGITAL MAYNAD

END O ES9

DIGITAL MAYNAD

October 2, 1963

COPY

Miss Dorothy E. Rowe, Treasurer
American Research and Development Corp.
200 Berkeley Street
Boston 16, Massachusetts

Dear Miss Rowe:

At Mr. Anderson's request, I am inviting you to attend a one o'clock luncheon preceding the Board of Directors Meeting on October 7 at the Digital Equipment Corporation.

Cordially yours,

(Mrs.) N. Survilas, Secretary
H. E. Anderson's Office

ncs

October 2, 1963

COPY

Mr. Henry W. Hoagland, Vice President
American Research and Development Corp.
200 Berkeley Street
Boston 16, Massachusetts

Dear Mr. Hoagland:

At Mr. Anderson's request, I am inviting you to attend a one o'clock luncheon preceding the Board of Directors Meeting on October 7 at the Digital Equipment Corporation.

Cordially yours,

(Mrs.) N. Survilas, Secretary
H. E. Anderson's Office

ncs

October 2, 1963

COPY

Mr. William H. Congleton, Vice President
American Research and Development Corp.
200 Berkeley Street
Boston 16, Massachusetts

Dear Mr. Congleton:

At Mr. Anderson's request, I am inviting you to attend a one o'clock luncheon preceding the Board of Directors Meeting on October 7 at the Digital Equipment Corporation.

Cordially yours,

(Mrs.) N. Survilas, Secretary
H. E. Anderson's Office

ncs

October 2, 1963

COPY

Mr. Jay W. Forrester
11 Holden Wood Road
Concord, Massachusetts

Dear Mr. Forrester:

At Mr. Anderson's request, I am inviting you to attend a one o'clock luncheon preceding the Board of Directors Meeting on October 7 at the Digital Equipment Corporation.

Cordially yours,

(Mrs.) N. Survilas, Secretary
H. E. Anderson's Office

ncs

October 2, 1963

COPY

Mr. Wayne P. Brobeck
5028 Westpath Terrace
Washington 16, D. C.

Dear Mr. Brobeck:

At Mr. Anderson's request, I am inviting you to attend a one o'clock luncheon preceding the Board of Directors Meeting on October 7 at the Digital Equipment Corporation.

Cordially yours,

(Mrs.) N. Survilas, Secretary
H. E. Anderson's Office

ncs

October 2, 1963

COPY

Mr. John Barnard, Jr.
Gaston, Snow, Motley and Holt
82 Devonshire Street
Boston 9, Massachusetts

Dear Mr. Barnard:

At Mr. Anderson's request, I am inviting you to attend a one o'clock luncheon preceding the Board of Directors Meeting on October 7 at the Digital Equipment Corporation.

Cordially yours,

(Mrs.) N. Survilas, Secretary
H. E. Anderson's Office

ncs

October 2, 1963

COPY

Mr. Vernon R. Alden
29 Park Place
Athens, Ohio

Dear Mr. Alden:

At Mr. Anderson's request, I am inviting you to attend a one o'clock luncheon preceding the Board of Directors Meeting on October 7 at the Digital Equipment Corporation.

Cordially yours,

(Mrs.) N. Survilas, Secretary
H. E. Anderson's Office

ncs

HRA.

October 3, 1963

COPY

Dr. Marvin Schorr, President
Technical Operations, Inc.
South Avenue
Burlington, Massachusetts

Dear Dr. Schorr:

Recently, it has been brought to my attention that your Mr. Langevin and our Mr. Bonner have been discussing the suitability of our Programmed Data Processors for use at Technical Operations, Inc. We have designed our computers for scientific applications with particular emphasis on close man machine relationships. Our CRT displays with light pens are important input output facilities allowing a scientist to interact with the computer while his problem is in process.

I would like to invite you and your associates to visit our office in Maynard to see demonstrations of this equipment if you so desire. I will telephone you in the next few days to discuss the possibility of such a meeting with you.

Sincerely,

Harlan E. Anderson
Vice President

HEA:jb

October 7, 1963

COPY

Mr. William Ramage
University of Pittsburgh
Pittsburgh, Pennsylvania

Dear Mr. Ramage:

Thank you for telephoning today concerning man-machine interaction facilities for teaching machine use. The cathode ray tube equipment such as that which is in use at Bolt, Beranek, and Newman is of considerable use in this area. I am enclosing with this letter some descriptive literature concerning other products manufactured by DEC. If, on your visit to the Boston area on the 22nd of October, you have an opportunity, we would be very pleased to show you our equipment and facilities here in Maynard. Please feel free to either write or telephone me if you wish to do this.

Sincerely,

Harlan E. Anderson
Vice President

HEA:ncs
Enc: Brochures on
CRT
PDP-4
PDP-5
Pulse Height Analyzer

October 11, 1963

COPY

Mr. Keith Burgess
"Bois Grenier"
2 Erringham Road
Shoreham-by-Sea, Sx.
England

Dear Mr. Burgess:

It was very nice of you to telephone last Friday concerning Harwell. I hope the literature that you requested arrived in time and was useful. I have received your letter of October 8th today and am circulating it to my associates for review and comment. I quite agree with your observations that a form of local organization in the UK is important; however, the question of how this can be best established is, of course, the important one. During the month of November, Mr. John Leng of Digital Equipment of Canada, Limited, will be visiting the UK and I have asked him to write to you to establish an appointment for further discussions.

I will plan to write to you again after we have had an opportunity to discuss your letter further. Thank you for your interest in DEC.

Sincerely,

Harlan E. Anderson
Vice President

HEA:mcs
cc: Messrs. Hindle, Leng and
Mazzarese

HEA

October 11, 1963

COPY

Mr. Keith Burgess
"Bois Grenier"
2 Erringham Road
Shoreham-by-Sea, Sx.
England

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I will plan to write to you again after we have had an opportunity to discuss your letter further. Thank you for your interest in DEC.

Sincerely,

Harlan E. Anderson
Vice President

HEA:mcs
cc: Messrs. Hindle, Leng and
Mazzarese

HKR

October 15, 1963

COPY

Mr. Arnaud de Vitry
Post Office Box 41
Villars-sur-ollon
Vaud, Switzerland

Dear Arnaud:

I am sorry that I didn't have the opportunity to see you in Basel when we had our exhibition. I was very pleased with the interest and general results that we got. We were the only American company exhibiting a computer and with our cathode ray tube attracted considerable interest.

Concerning Solartron, I have asked John Leng, who is with Digital Equipment of Canada Limited, to visit Mr. Davies and Mr. Catherall when he goes to Europe early in November. He will contact them by letter prior to his arrival. John joined us recently after having considerable application experience with the PDP-1 computer while he was employed by the Atomic Energy Commission of Canada at Chalk River, Ontario. I was somewhat surprised that Solartron would be interested in our digital computers in view of their association with Advanced Scientific Instruments through EMR. However, we shall be delighted to contact them. I met with Mr. Ronald Payne while in Melbourne. He seemed very likeable and had a very capable man with him named Peter Wingett. Unfortunately, they already represent Advanced Scientific Instruments and therefore would not be able to work with us. Our tentative plans for Australia is to use another sales representative named J. J. Masur and Company PTY, Ltd. and at the same time establish several DEC employees in Australia for technical support. The commission arrangement on the computer will be a nominal one under these conditions.

I was interested in your comments on Mr. Lantieri of Le Materiel Electrique. We were so busy in Basel that I do not recall having seen his exhibit nor the PLP. However, we plan to exhibit at the Mesucora in Paris during the week of November 14th. Jon Fadiman and John Leng both will be there along with our German people. Perhaps that would be a convenient opportunity to get acquainted. Incidentally, we are in the

final phase of negotiating a sale of five PDP-5's to Westinghouse for use as data loggers and alarm scanners. In general, the sale of the PDP-5 is going very very well.

In case you plan any trips to the United States in the near future, we have moved the dates of the next two Directors Meetings slightly. On the 4th of November we are having a meeting in Boston and on the 9th of December we are having a meeting in Maynard with the Annual Dinner following the meeting.

Sincerely,

Harlan E. Anderson
Vice President

HEA:Nncs
Enclosures
Brochures on PDP-1,
PDP-4, PDP-5 and
PDP-6.

October 18, 1963

Mr. C. Ishikawa, President
Rikei Trading Company, Ltd.
Kozato Kaikan Building
12, 2-Chome, Shiba Tamura-Cho,
Minato-Ku, Tokyo

Dear Mr. Ishikawa:

I want to thank you and your associates for the fine hospitality that you showed to me during my recent trip to Japan. Although the time was short, I now have a better understanding of your organization and of the potential market for computers. I am enclosing with this letter a copy of the DECAL Manual for the PDP-1 and the August issue of DATAMATION magazine which describes CRT applications for computers. In addition, I am sending a copy of the PDP-1 In-Out Manual which was requested by Tokyo University personnel at our meeting.

While I was in your office, we discussed the possibility of your hiring a senior engineer to aid in the selling and servicing of DEC products in Japan. You asked the question if we would be willing to share in the travel and living expenses for such a man while he acquired training at our factory in the U.S. I have discussed this matter extensively with my associates and have the following proposal to make to you.

1. DEC will provide a description of the desired qualifications (school, experience, age, etc.) to be used in selecting the man.

2. Rikei will furnish a resume of the potential employee to DEC prior to offering him employment.

3. The man will be interviewed prior to his employment by Mr. Yu Hata of TDK Electronics in order to judge his technical capacity to perform the desired work. Interviews by DEC personnel travelling in Japan at the time may also be arranged.

4. DEC will make necessary government arrangements for entry of the man into the United States for training at our factory for a period of time up to one year and in general will assist the man in locating living accomodations, etc.

5. DEC will pay 2/3 of the man's round trip tourist class air travel expenses and 2/3 of reasonable living expenses while at our factory with Rikei paying 1/3 of each.

6. Rikei would pay his normal salary during the training period.

7. DEC will provide the training at no charge.

8. If DEC starts a subsidiary company in Japan during the next five years, it would be understood that the man would become an employee of this subsidiary and Rikei would cooperate with DEC in accomplishing the transfer.

I would appreciate your comments on the proposal concerning this training at your earliest convenience. We at DEC are pleased with the sales results in memory testing equipment in Japan thus far and would like to congratulate you on doing a good job. In the United States this product line represents only 10% or 15% of our total business, and if we can successfully market our other products (computers and modules) in Japan, this will mean a very large increase in business.

It will require that we increase the technical support along the lines indicated above and this is why we are willing to invest in this training.

Thank you again for your kindness during my recent trip.

Sincerely,

Harlan E. Anderson
Vice President

HEAsncs
cc: Messrs. S. Olsen and
J. Fadiman
Enc: DECAL Manual, DATAMATION
I-O Manual

DESCRIPTION OF DESIRED NEW ENGINEER FOR RIKEI TRADING COMPANY, LIMITED

1. University graduate in electrical engineering or very closely related field.

2. Interested in digital computers and should have had some contact with them. This could have been while a student or could be based on some work experience.

3. Speaks English sufficiently well that his technical training at the DEC factory could commence immediately after arrival.

4. Should not be over 30 years of age.

5. Should be willing to participate enthusiastically in a wide range of "on the job training" areas such as production testing of a computer, computer programming, logic design, etc.

KEA

October 18, 1963

Mr. C. Ishikawa, President
Rikei Trading Company, Ltd.
Kozato Kaikan Building
12, 2-Chome, Shiba Tamura-Cho,
Minato-Ku, Tokyo

COPY

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Sincerely,

Harlan E. Anderson
Vice President

HEA:ncs
cc: Messrs. S. Olsen and
J. Fadiman
Enc: DECAL Manual, DATAMATION
I-O Manual

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SHOREHAM
4497

"BOIS GRENIER"
2 ERRINGHAM ROAD
SHOREHAM-BY-SEA, SX.

Mr. Harlan E. Anderson
Vice President
Digital Equipment Corp.
Maynard
Massachusetts
USA

22nd October, 1963.
KSB/BP

Dear Mr. Anderson,

The attached copy letter is self-explanatory. I am looking forward to seeing your equipment in Paris with great interest.

I received the literature you sent me safely and would say once again that there is considerable interest over here. Incidentally, could you please send me a copy of your Digital Module Handbook and pricelist?

Regards and best wishes,

Yours sincerely,

Keith Burgess.

K. S. Burgess

SHOREHAM
4497

"BOIS GRENIER"
2 ERRINGHAM ROAD
SHOREHAM-BY-SEA. SX.

Mr. John Leng,
Manager of Engineering
Digital Equipment of Canada Limited
Ottawa
Canada

22nd October, 1963.
KSB/BP

Dear Mr. Leng,

Thank you for your letter of 17th October. I had been considering the possibility of visiting MESUCORA and in view of the information you have given me, as far as I can say, I shall now be definitely visiting the Exhibition and will spend some time with you. It is also possible that I shall attend the Symposium on Nuclear Electronics which follows the Exhibition. Several of my contacts would be very interested in seeing your equipment and it is possible that I will bring one or two of them with me, but I will let you know as soon as any arrangements are final.

If, for any reason, this meeting in Paris does not materialize, I will look forward to meeting you here in England.

Yours sincerely,

K. S. Burgess

cc.
Mr. Anderson

HKA.

November 19, 1963

COPY

Mr. David H. Lord
National Institute for Research
in Nuclear Science
Rutherford High Energy Laboratory
Chilton, Didcot, Berks.
England

Dear Mr. Lord:

As you suspected in your letter dated November 15th, Mr. Leng had left on his trip to Europe prior to receipt of your two letters concerning the Type 57A Tape Control. The letters were being forwarded to him and one had reached him according to the message I received from him last night from Paris. The second letter had been forwarded to our Munich office pending his arrival there. I have made arrangements for both letters to be returned to our factory in Maynard and will promptly provide you the detail information that was requested.

In the meantime, I am having sent to you descriptive information on the Type 57A and also a new tape drive known as the Model 570, in case you have not yet received this information. You will hear from us again as soon as the two letters have been returned here. Mr. Leng is not likely to have with him the necessary information to answer your questions since this is a rather new product with us. I am also enclosing a folder on our new Cathode Ray Tube Display which I thought you might find interesting.

Sincerely,

Harlan E. Anderson
Vice President

HEA:ncs
Enclosures:
Type 57A Tape Control
Type 340 Display Folder
Type 570 Magnetic Tape

NATIONAL INSTITUTE FOR RESEARCH IN NUCLEAR SCIENCE

RUTHERFORD HIGH ENERGY LABORATORY,
~~HARWELL,~~ Chilton,
DIDCOT, BERKS.

TELEPHONE: ABINGDON 1900
OUR REF:
YOUR REF:

15th November 1963.

Mr Harlan Anderson
Digital Equipment Corp.
Maynard
Massachusetts
U.S.A.

Dear Mr Anderson,

In the first two weeks of this month I have written a couple of letters to Mr John Leng. Since I sent them I have realized that they may not reach him before he sets out for Europe. If Mr Leng is not available to deal with these letters and as they are concerned with our possible use of one of your 57A Tape Units - a matter of urgency for us - I would be grateful if you could arrange for someone else to deal with them.

Yours sincerely,

David Lord

D. H. Lord

October 24, 1963

Mr. Keith S. Burgess
"Bois Grenier"
2 Erringham Road
Shoreham-by-Sea, Sx.
England

Dear Mr. Burgess:

In reply to your letter and request of October 22nd I am enclosing a copy of our Module Handbook and price list.

If you desire further literature please do not hesitate to write.

Sincerely,

(Mrs.) N. Survilas
H. E. Anderson's Office

ncs
Encl.

HEA

November 19, 1963

COPY

Mr. I. J. Biltchick
Hardware Distrubting Company
1769 Boone Avenue
New York, New York

Dear Mr. Biltchick:

It was a pleasure to have talked with you on the telephone this afternoon. As you requested I am enclosing literature on our PDP-5 Computer.

Thank you for your interest in DEC products.

Sincerely,

Harlan E. Anderson
Vice President

HEA:ncs
Enclosures

HEA

November 19, 1963

COPY

Dr. H. R. Warner, Director
C. V. Laboratory
L. D. S. Hospital
325 Eighth Avenue
Salt Lake City, Utah

Dear Dr. Warner:

It was a pleasure to have the opportunity to meet you recently at the Las Vegas Computer Convention. I am enclosing with this letter the information that I mentioned to you concerning our new low cost high-density modules. In addition, I am having sent to you a copy of our standard module catalog. I hope that this information will prove helpful to you and should you wish additional assistance, please feel free to contact our home office in Maynard or our West Coast Office at 8939 Sepulveda Boulevard, Los Angeles or our Palo Alto Office at 2450 Hanover St.

Thank you for your interest in DEC products.

Sincerely,

Harlan E. Anderson
Vice President

HEA:ncs
Enclosures:
C-4200
B-55
A-705 (under separate cover)

HEA

November 19, 1963

COPY

Mr. Gale McGuffy
Naval Electronics Laboratory
San Diego, California

Dear Mr. McGuffy:

It was a pleasure to have an opportunity to talk with you at the recent Las Vegas Convention. I am enclosing with this letter the circuit schematics for those modules which you ordered recently. I am sorry that you did not receive these with your shipment but hope that they will prove helpful to you now. Thank you for your interest in DEC products.

Sincerely,

Harlan E. Anderson
Vice President

HEA:ncs
Enc: Circuit Schematic

file

November 27, 1963

Mr. Glenn E. Strahl
1022 Diablo Road
Danville, California

COPY

Dear Glenn:

We were all very pleased to have a chance to talk with you in Las Vegas about the possibility of your joining DEC in an engineering position.

Since returning, we have studied our needs very carefully and have concluded that there is no way for us to use your extensive background effectively at the present. We believe strongly that there should be a clear need for a senior engineer before we employ him, and there is no current area where we see a requirement that would be a challenge to you.

Your interest in DEC during the past several years is very much appreciated and I am sorry that we have to reply negatively to you now. There may indeed be new opportunities which will develop and we would like to be able to contact you if they occur.

Sincerely,

Harlan E. Anderson
Vice President

HEA:ncs

December 4, 1963

Mr. Keith Burgess
"Bois Grenier"
2 Erringham Road
Shoreham-by-Sea, Sx.
England

COPY

Dear Mr. Burgess:

I was pleased that several of my associates had an opportunity to meet and talk with you several weeks ago.

Since their return, we have considered our needs in Europe and the United Kingdom as they relate to your interests, and we have decided not to pursue the possibilities that you have proposed. We feel that there is no way for us to make effective use of your background and experience in working with DEC.

The ideas you have suggested and the enthusiasm you have shown make it difficult to reply negatively to you, and we certainly appreciate your interest in DEC.

Sincerely,

Harlan E. Anderson
Vice President

HEA:ech

December 10, 1963

COPY

Mr. Harold Boyd
Department D-25
2B Room 419
Mitre Corporation
Box 208
Bedford, Massachusetts

Dear Mr. Boyd:

At Mr. Anderson's request I am enclosing a copy of our recent PDP-6 brochure.

If you would like further literature please do not hesitate to contact us.

Sincerely,

(Mrs.) N. Survilas
Secretary - H. Anderson's Office

ncs
Enc: F-63(166)

December 10, 1963

Mr. D. Leighton Davies
Director (Systems)
The Solartron Electronic Group, Ltd.
Farnborough, Hampshire
England

Dear Mr. Davies:

As requested in your letter of December 5 to Mr. Anderson, hotel reservation has been made at the Statler-Hilton in Boston for late arrival on Tuesday, December 17th and a Town Taxi from Maynard will be at the hotel at 9:30 a.m. on Wednesday, December 18th to deliver you to our plant.

If we can be of any assistance during your tour of the U.S. please do not hesitate to contact us.

Sincerely,

(Mrs.) N. Survilas
Secretary - H. Anderson's office

ncs

SOLARTRON

THE SOLARTRON ELECTRONIC GROUP LTD

FARNBOROUGH · HAMPSHIRE

TELEPHONE:
FARNBOROUGH, HANTS 3000

CABLES:
SOLARTRON, FARNBOROUGH, HANTS

TELEX:
8545 SOLARTRON F N B R O.

Mr. Harlan Anderson,
Vice President,
Digital Equipment Corporation,
Maynard,
MASSACHUSETTS,
U.S.A.

5th December, 1963

DLD/MWO

Dear Mr. Anderson,

Yesterday, we had the pleasure of receiving one of your people, namely Mr. Leng, from your Canadian branch. We found a great deal in common and spent an extremely interesting day together. No doubt you will hear his comments directly from him, on his return.

I happen to be visiting the U.S.A. over the next two weeks and should very much like to call and see your plant and general facilities at Maynard. As my arrangements stand at the moment, I should arrive in Boston on the evening of Tuesday 17th December, being available to visit you on the following day.

At Mr. Leng's suggestion, may I ask you to reserve accommodation for me for the night of Tuesday 17th, at the Statler Hilton, Boston, and if at all possible, to get one of your company cars to collect me the following morning from the Hotel, since I gather you are some way out of town.

The picture painted by Mr. Leng of your vigorous young company, sounds unusual and extremely interesting, and I look forward very much to seeing the detail of it all while over there.

I trust that my requests to you to assist in accommodation etc. will not be too inconvenient, particularly at such short notice.

Looking forward to meeting you,

Yours sincerely,

D. Leighton Davies

D. Leighton Davies
Director, (Systems)

John Long will be here.

Land 9.30 a.m.

December 11, 1963

Mr. David H. Lord
National Institute for
Research in Nuclear Science
Rutherford High Energy Laboratory
Chilton, Didcot, Berkshire
ENGLAND

COPY

Dear Mr. Lord:

In regard to the Type 57A Tape Control and questions raised by your first letter, I have proposed two courses of action. The first would place heavy demands on your engineering staff but would require minimum expenditure. The second would put a relatively light load on engineering and require a larger investment. If time was the only consideration, Proposal #2 would be the best alternative. The decision as to which method is used is left entirely up to you. I will outline below what DEC would do in each case and its cost to you.

Proposal #1

Digital Equipment Corporation will supply at no cost to Rutherford High Energy Laboratory a set of drawings for the Type 57A Tape Control unit including the Type 522. Rutherford High Energy Laboratory would purchase all modules from DEC, would modify the design of the Type 57A to be compatible with the ORION, would wire and assemble the system and test it.

Digital Equipment Corporation would supply at a time convenient to the Rutherford High Energy Laboratory an engineer from the staff of Digital Equipment Corporation to assist for one week in the final checkout. Cost of the modules and mounting panels for this approach would be $11,087.00, exclusive of the interface to the ORION Computer. Delivery on the above items would be one month. Terms are net 30 days, f.o.b. Maynard, Massachusetts, U.S.A.

Mr. David H. Lord
Rutherford High Energy Laboratory

December 11, 1963

Proposal #2

Digital Equipment Corporation would sell Rutherford High Energy Laboratory a DEC Type 57A Tape Control Unit with a DEC Type 522 Interface (IBM) completely tested to operate on a DEC PDP-4 Computer.

Rutherford High Energy Laboratory would design and assemble the logical interface to make the ORION Computer appear to be a PDP-4 to the Type 57A Tape Control.

Digital Equipment Corporation would supply an engineer as in Proposal #1. Digital Equipment Corporation would guarantee that the Type 57A Tape Control worked properly on a PDP-4 computer prior to being shipped. Cost of this approach including the Type 522 would be $24,000.00, exclusive of the interface required to simulate the PDP-4.

Delivery would be three months from receipt of order. Terms are net 30 days, f.o.b. Maynard, Massachusetts, U.S.A.

Mr. Gordon Bell informs me that you are in possession of all block schematics with the exception of the Type 522 Interface. I have enclosed these schematics for your inspection.

Please let us know if you would like to proceed with either of these proposals.

Sincerely,

Harlan E. Anderson
Vice President

HEA:vg

cc: Mr. John Leng
Ottawa

HEA file

December 12, 1963

COPY

Miss M. Lambert
Personal Assistant to Managing Director
Computer Consultants Limited
Cecil Court - London Road
Enfield, Middlesex
England

Dear Miss Lambert:

Your letter of December 9 to Mr. Olsen regarding your European Survey has been referred to me for answer. We appreciate your interest in reporting the progress of this project but do not feel that it will be of sufficient value to us to warrant purchasing it at this time.

Thank you for your interest in DEC.

Sincerely,

Harlan E. Anderson
Vice President

HEA:ncs

Computer Consultants Limited

Established 1957

CECIL COURT
LONDON ROAD
ENFIELD, MIDDX

Associated Companies:
Computer Assembling Limited
Computer Bingo Limited
Computer Colleges Limited
Computer Consultants (International) Limited
Computer Maintenance Limited
Computer Research Limited
Computer Spares Limited
Computer Staff Selection Limited
Computer Time Hire Limited

Telegrams & Cables:—COMPUTERS ENFIELD
Telephones:—ENField 7185, 9219

December 9, 1963,

Kenneth J. Olsen, Esq.,
The President,
Digital Equipment Corporation,
Maynard,
Massachusetts,
U.S.A.

Dear Mr. Olsen,

Further to our letter of August 26, as sufficient people are now interested in taking part in our European Survey we are going ahead with it and are wondering if you are still interested in purchasing the report. This report will be compiled of facts collected during the Survey and will cost four hundred and twenty five guineas.

Could you please let me know as soon as possible whether or not you are interested in taking part in this activity? We anticipate starting work on it at the beginning of January.

Yours sincerely,

Maureen Lambert

M. Lambert (Miss)
Personal Assistant to Managing Director

HEA file

December 12, 1963

Sir Leon Bagrit
Chairman of the Board
and Managing Director
Elliott-Automation Ltd.
34 Portland Place
London W.1. England

COPY

Dear Sir Bagrit:

I want to express my appreciation to you for taking the time to visit our facility during your recent trip to the United States. I enjoyed meeting with you and Dr. Ross and hope that the expectations of your visit were satisfied. Although I do not have any immediate plans for visiting England, I would like very much to accept your kind offer to visit Elliott during some future trip. I am having sent to you and Dr. Ross a copy of our module catalog which illustrates our product lines.

Thank you again for your interest in DEC.

Sincerely,

Harlan E. Anderson

HEA:ncs
bcc: J. Fadiman
cc: Dr. Ross

HEA

December 17, 1963

COPY

Mr. Louis D. Piana, President
National Atlantic Corporation
369 Lexington Avenue
New York, New York 10017

Dear Mr. Piana:

Your letter of November 6th to Mr. Olsen regarding foreign sales has been referred to me. DEC has a wholly-owned sales subsidiary in Germany which carries out this function on our behalf. Since our equipment is normally used by scientists in their research work, we find close communications between the customer and the factory are essential and thus try to minimize the number of intermediate steps. In view of this, it is unlikely that we would be able to utilize the services of your organization, but we would like to thank you for the interest you have shown in DEC.

Sincerely,

Harlan E. Anderson
Vice President

HEAmcs

NATIONAL ATLANTIC CORPORATION

369 LEXINGTON AVENUE

NEW YORK CITY, 10017

CABLE ADDRESS:
ATLEXAS NEWYORK

TELEPHONE:
212 OX 7-8260

November 6, 1963

Mr. Kenneth H. Olsen, Pres.
The Digital Equipment Corp.
Maynard, Mass.

Dear Mr. Olsen:

The National Atlantic Corporation has been organized to help medium sized electronic companies like yours initiate or broaden foreign sales. As specialists in the export of non-competitive electronic and E.D.P. peripheral equipment from U.S. manufacturers, National Atlantic Corp. offers a unique and comprehensive service covering all aspects of international marketing.

Depending upon your needs, we can serve as your exclusive distributor, assist you in special markets in which you may be interested, or adapt our services to any other particular need.

We have our exclusive representatives, distributors and agents in all major countries. A partial list is herewith enclosed. Each company listed is financially responsible and is staffed with capable and technically trained sales personnel. Furthermore, members of our staff continuously travel abroad to strengthen and supervise our overseas operations by personal contacts.

As an indication of the technical competence and capability of our own organization we are also attaching a personal summary of two members of our U. S. staff, Mr. A. Shaw and Mr. L. Piana, setting forth their qualifications and experience in all phases of international business for highly technical equipment, products and services. You are thus assured of deriving maximum benefits in reaching and/or expanding overseas markets with your equipment and products.

In addition, we handle all necessary export documentation including licenses, ocean or air freight shipments, letters of credit, and all other associated services. We can also supervise, if desired, any special packing or crating of your equipment for export shipment.

We look forward to the opportunity to meet with you or with one of your representatives to explore in more detail how we can be of service to you, either as your export marketing representative, or to augment any present arrangement you may have, or to assist you in determining market potential abroad for your special products.

In preparation for such an exploratory meeting we respectfully invite your comments or questions. We look forward to hearing from you.

Very truly yours,
NATIONAL ATLANTIC CORPORATION

L. D. Piana

Louis D. Piana
President

LDP:ss
Encl.

NATIONAL ATLANTIC CORPORATION

International Offices, Representatives and Agents

FRANCE
Coframet S.A.
22 Rue de General Foy
Paris 8, France

ITALY
Macchine ed Impianti
Ing. Donati S.A.
Via Generale Albicci 8
Milano, Italy

BRAZIL
a. Cibramet S.A.
Avenida Almirante
Barroso 158
Sao Paulo, Brazil

b. Bandeira de Mello S.A.
Av. President Wilson
198
Rio de Janeiro, Brazil

ENGLAND
Cometalco
12 Camomile St.
London, E.C.3, England

JAPAN
Alliance Shippers &
Industries Pty., Ltd.
Central P. O. Box 54
Tokyo, Japan

MEXICO
Mr. Dante Sergio Cusi
Cia Industrial de San
Cristobal S.A.
Lieja #8, Paseo de la
Reforma
Mexico City, D.F., Mexico

SOUTH AFRICA
Cometalsa (Pty.) Ltd.
200 Surrey House
Johannesburg, South Africa

NORWAY
Ferdinand Egeberg & Co.
Radhusgaten 5B
Oslo, Norway

THAILAND
Economic Development Co.
Bank of America Bldg.
Bangkok, Thailand

GREECE
a. Antony A. Exarhou & Co.
19 Kronon St.
Paleon Feleron
Athens, Greece

b. G. Maltsiniotis & Cie.,
S.A.
Rue Skoufa 15
Athens, Greece

EGYPT
Egyptian Office for Foreign
Agencies
12 Abdel Khalek Sarwat
Cairo, Egypt

TURKEY
Adil Gabai & Albert
Koenka Associates
Galata Postal Kutusu 1258
Istanbul, Turkey

HONDURAS
Antonio Giuliani S.A.
Apartado 130
Tegucigalpa, D.C. Honduras

HONGKONG
Hongkong Canton Export Co.,
Ltd.
P. O. Box 465
Hongkong

ARGENTINA
Pandile Argentina S.A.
Sarmiento 1967
Buenos Aires, Argentina

AUSTRIA
Igo Kleinmayr, Inc.
Theaterplatz 3
Klagenfurt, Kaeruten
Austria

SWEDEN
a. Herbert Jahrmarkt
Solsidaus Gasthem
Saltsjöbaden, Stockholm
Sweden

b. Dr. Ing. Herbert Lickfett
Post Box 3176
Stockholm 3, Sweden

INDIA
Klimt & Lion Co., Ltd.
West India House
7 Sir Phirozshah Metha Rd.
Fort Bombay, India

BELGIUM
Mapramet S.A.
51 bis Chaussée de Charleroi
Brussell, Belgium

GERMANY
Metall-Chemie G.m.b.H.
Fuhlentwiete 46
Hamburg 36, Germany

VIETNAM
Curt R. Schaefer Associates,
Ltd.
P. O. Box 468
Saigon, Vietnam

COLOMBIA
Ing. Ugo Von Vogelsang, S.A.
Apt. Nat. 2831
Bogota, Colombia

SWITZERLAND
Andrew W. Gotz, A.G.
Riva Caccia 12
Lugano, Switzerland

NIGERIA
M. N. Nzimiro S.A.
4 Nzimiro St.
P. O. Box 166
Port Harcourt, Nigeria

LOUIS D. PIANA

430 Park Avenue
Rye, New York
TEnnison 5-3330

Education:

1. Montana School of Mines, 1949. M.E. degree with honors.
2. Polytechnic University of Turin, 1945/1946.
3. Royal Academy of Engineers, Italy, 1942. B.S. degree with honors.

Business Experience:

1. 1962 to 1963, Manager of Operations Planning for Univac Division of Sperry Rand Corporation, New York City. In charge of business planning for tabulating and electronic peripheral equipment, administration and negotiation of contractual agreements for world wide distributorships, training and organization.

2. 1960 to 1962, Assistant to the Chairman of the Board, National Data Processing Corporation, Dallas, Texas. In November, 1961 this company was acquired by the Univac Division of Sperry Rand Corporation. Responsible for coordination and integration of manufacturing and sale of NDP equipment systems and procedures, and negotiations of world wide marketing and licensing agreements.

3. 1960, President and Director of Amphibious Boat, Inc., Dallas, Texas. Started as distributor, invited by Board of Directors to become President, and effected profitable merger of company after market analysis.

4. 1951 to 1959, Executive Assistant to President of Mercantile Metal & Ore Corporation, New York City. Administration, international operations covering 23 countries including financial control, new business development, acquisitions, barter agreements and contract negotiations.

5. 1949 to 1951, Sales Engineer with Western Machinery Company, San Francisco, California. Provided technical sales assistance to distributors.

Memberships:

1. American Management Association.
2. American Institute of Mining and Metallurgical Engineers.
3. Fort Worth Boat Club.
4. Port Washington Yacht Club.

Personal Data:

Height: 6'1" Age: 41 Married, two children.

Languages:

French -- Italian -- Spanish

ALVIN SHAW

315 W. 70th Street
New York, New York

TR 3-9566

Experience:

1. 1956 to 1963, Partner of Harvey L. Ross Assoc., Inc., New York City Business Consultant for special selling techniques and marketing strategies. Purchase and liquidation of businesses and factories in USA and abroad.

2. 1954 to 1956, Marketing representative in Korea for following firms:

Central National Corp.	Mercantile Metal & Ore Corp.
B. F. Goodrich Corp.	Southwestern Tobacco Co.
Luria Steel Corp.	Atlas Powder Co.
Elof Hannson	Rocke International Corp.
Acoma Company, Inc.	Paul Jhin Co., Inc.
Oliver Corp.	

3. 1934 to 1954, United States Navy. Primary assignments in Command, Submarine Engineering and Office of Naval Intelligence. Retired rank for pay purposes: Senior Grade Lieutenant.

Memberships:

1. U. S. Naval Officers Club, Washington, D. C.
2. Adventurer's Club, Honorary
3. U. S. Military Air Force Officer's Club, Terrejon, Spain

Languages:

Spanish -- German

Personal Data:

Height: 6'1" Age: 47 Married, one child.

HEA file

December 17, 1963

COPY

Mr. D. H. Lord
National Institute for Research in Nuclear Science
Rutherford High Energy Laboratory
Chilton, Didcot, Berks.
England

Dear Mr. Lord:

I was pleased to receive your letter of December 12th indicating that your discussions with Mr. Bell had been useful. Regarding the Midwestern or Potter Tape decks, we will not be able to assist you on the rental of these since our company does not provide rental of our equipment for short periods of time. The tape decks, as purchased from either Midwestern or Potter, do not of course have the necessary electronics to connect to the 57A Control. I doubt if either of those manufacturers offer rental plans so that solution does not look very attractive. I would think your most economical course of action would be to rent an IBM 729 tape deck from IBM. I believe their rental rate in the United States is approximately $1,000 per month.

I hope this information will be helpful to you and that my letter of last week has arrived by now and will provide some information that will assist you.

Sincerely,

Harlan E. Anderson
Vice President

HEA:ncs
cc: DEGmbH

NATIONAL INSTITUTE FOR RESEARCH IN NUCLEAR SCIENCE,

RUTHERFORD HIGH ENERGY LABORATORY,
~~HARWELL~~, Chilton,
DIDCOT, BERKS.

12th December 1963.

Mr Harlan E. Anderson
Digital Equipment Corp.
Maynard
Massachusetts
U.S.A.

Dear Mr Anderson,

Since I last wrote to you I have had a very useful talk with Mr Bell when he was here during the PDP5 exhibition. He made several very useful proposals as to how we could use the 57A Tape Control with our Orion. He has no doubt informed you of them.

In my last letter to you I mentioned that we hoped to be able to borrow an IBM 729 tape deck from another department. This has unfortunately fallen through. Now if we are to get this project accepted we know that we shall have to find the most economic solution to our problem. Therefore we now have to think of hiring a tape deck, rather than buying one outright.

I believe that one can use either Midwestern or Potter Tape decks with the 57A. Would it be possible to rent either of these decks through you or directly from their manufacturers? If so could you indicate the rental rates.

Thank you once more for your help.

Yours sincerely,

David H. Lord.

D. H. Lord

HKN file

December 23, 1963

Mr. P. N. Whittaker, Manager
Contracts
International Business Machines Corp.
326 East Montgomery Avenue
Rockville, Maryland

Dear Mr. Whittaker:

At Mr. Anderson's request I am returning one signed copy of your Information Disclosure Agreement as acceptance of satisfactory terms.

in Dick Mills' ~~Lease~~ agreement file

Sincerely,
DIGITAL EQUIPMENT CORPORATION

(Mrs.) N. C. Survilas
Administrative Department

ncs
Enc: Agreement Dated December 3, 1963
from D. T. Spaulding, Federal Sys. Div.

cc: Mr. R. Cesari

COPY

December 26, 1963

COPY

Mr. Jerome Kennedy
Applied Dynamics, Inc.
2275 Platt Road
Ann Arbor, Michigan

Dear Mr. Kennedy:

At Mr. Anderson's request I have enclosed 12 copies of our PDP-5 Manual (F-55) and the address for our Munich office is the following:

Digital Equipment GmbH
Theresien 29
8 Munchen 22
West Germany

If you would like further literature on the PDP-5 please do not hesitate to contact us.

Sincerely,

(Mrs.) N. Survilas
Harlan Anderson's Office

ncs
Enclosures (12)

HEA file

December 27, 1963

COPY

Mr. John G. Guthrie, Product Manager
Product Planning Department
Farrington Manufacturing Company
Shirley Industrial Area
Springfield, Virginia 22150

Dear Mr. Guthrie:

Thank you for your letter of December 19th outlining your needs for data processing equipment. My immediate reaction is that our new and exciting PDP-5 computer should be examined carefully for its applicability to your work. It is the lowest price magnetic core computer on the market today. For a complete general purpose stored program data processing machine having 1,000 words of storage, the price is $24,000. This price includes a teleprinter type 33 which has a paper tape reader and punch and keyboard printer included. It sounds like there is a possibility that you would be a quantity user of these machines in your systems and therefore I should point out that we have quantity purchase plans which allow discounts up to 24% for quantities over five. I will enclose literature about the PDP-5 for your review.

Concerning logic modules, we, of course, have the largest selection of digital logic modules available in the U.S. and a large number of them are described in the module catalog which I am having sent to you under separate cover. I am also taking the liberty of suggesting that our area salesman contact you. His address is James Burley, Digital Equipment Corp., 1430 K. Street, NW, Washington 5, D.C.

Thank you for your interest in DEC products and I hope that we may be of further service to you.

Sincerely,

Harlan E. Anderson
Vice President

HEA:ncs
cc: J. Burley
Enc: PDP-5 Lit.

FARRINGTON® MANUFACTURING COMPANY

SUBSIDIARIES:
FARRINGTON ELECTRONICS, INC.
FARRINGTON BUSINESS MACHINES CORPORATION
Shirley Industrial Area
Springfield, Virginia 22150
Area Code 703 FLeetwood 4-5000
Cable Address FARMANCO

December 19, 1963

Mr. Harlan Anderson
Vice President
Digital Equipment Corp.
Maynard, Massachusetts

Dear Mr. Anderson:

I am writing at the suggestion of Mr. D.N. Decof, our National Services Manager.

As you may know, we manufacture machines which optically read printed characters and convert the information to digital form. We manufacture several different types of machines which are currently used in such applications as utility company billing entry, reading oil company credit card purchase invoices, and reading typewritten data for computer entry.

For the future we hope to offer a more flexible and easily programable machine which may perform more of the functions of an actual computer. For purposes of handling data internally once it has been reduced to digital form and for output control, we envision a small digital computer. It should have at least 2K storage and we prefer magnetic core although speeds need not be particularly high. Stored program and flexibility are what we primarily are interested in. Compatibility with the commercial output devices, particularly IBM magnetic tape, is also desirable.

I would appreciate any information you might have available on logic modules which we might use in our designs, design services available from you, and any pre-designed computer which might be useful to us "as is".

Sincerely,

John G. Guthrie

John G. Guthrie
Product Manager
Product Planning Department

JGG:lq

HEA

December 31, 1963

COPY

Mr. A. St. Johnston,
Joint Managing Director
E-A Data Processing Limited
Elstree Way, Borehamwood
Hertfordshire, England

Dear Mr. St. Johnston:

Thank you for your letter of December 20th requesting information about our digital modules. I am happy to hear of Dr. Ross's enthusiasm for his visit here. I am having a copy of our module catalog, to which he referred, sent to you under separate cover. Since this publication is now well over a year old, DEC has introduced many additional module types to the market. Some of the most exciting are our new high-density modules using passive integrated circuits. I am enclosing with this letter some descriptive information on these for your review. These modules have more flip-flops per package and cost less per flip-flop than ever before.

Thank you for your interest and I hope you find the enclosed information useful.

Sincerely,

Harlan E. Anderson
Vice President

HEA:mcs
Enc: 4220 Serie Folder

E-A DATA PROCESSING LIMITED

A MEMBER OF THE ELLIOTT-AUTOMATION GROUP

ELSTREE WAY · BOREHAMWOOD · HERTFORDSHIRE

Telephone: Elstree 2040 · Telegrams: Poynting · Borehamwood

20th December, 1963

Mr Harlan E. Anderson,
Vice President,
Digital Equipment Corporation,
Maynard,
Mass.
U.S.A.

Dear Mr Anderson,

Dr Ross evidently very much enjoyed visiting your plant and has told me of some of your accomplishments.

One thing that impressed him very much was the book that you apparently make available on digital components and I am wondering whether you could possibly send me a copy.

Yours truly,

A St Johnston

A. St.Johnston
Joint Managing Director