

OPERATIONS COMMITTEE MEETING

October 27, 1969

8:30 A. M.

AGENDA

1. Final Review of Stock Options  
(Please remember to bring your list with you.)
2. Additions and Corrections to Minutes of the October 13th and 20th Meetings
3. Marketing Review Committee Summary - (Ted Johnson)  
(Minutes of the October 14th meeting distributed for last week's meeting)

COMPANY CONFIDENTIAL



SPECIAL OPERATIONS COMMITTEE MEETING

October 27, 1969

8:45 A. M.

AGENDA

1. Review of Disk Manufacturing Problem - (Pete Kaufmann)
2. Displays - (John Jones)
3. Proposed Party Line on Responding to Customers - (Ted Johnson)  
(See attached report)
4. Proposal to Establish a Special Projects Group Within the Programming Department - (L. Portner)  
(See attached report)
5. Fall Joint Computer Conference - (Ted Johnson)  
(See attached reports from Ted Johnson, and Ed Kramer, Gabe d'Annunzio, Roy Gould)
6. Organization/Personnel Announcements - (Win Hindle)  
(See attached report from Graydon Thayer)
7. Proposed Charges for Special Payment Terms - (Brewster Kopp)  
(See attached report from Don Summers)
8. Review of Purchasing Department Procedures - (Henry Crouse)  
(See attached report from Andy Craffey)
9. Authorized Approval Authority Chart - (Ed Savage)  
(See attached report from Andy Craffey)
10. Discussion of Future Peripheral Plans - (Joe St. Amour)  
(All attendees of the meeting are to think about ideas for this.)
11. Corporate Contributions  
(See attached reports from Mark Nigberg and Pete Kaufmann)
12. Reporting Financial Data Outside DEC - (Brewster Kopp)  
(See attached report from Bob Dill)
13. Program Change Proposals - (Ed Savage)  
(See attached reports on EDP, PDP-12, Training, and DECUS)

In addition to the regular Operations Committee members, the following will attend this meeting:

Al Devault, John Jones, Bill Long, Joe St. Amour, Bob Savell, and Larry Portner

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DIGITAL EQUIPMENT CORPORATION



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digital

INTEROFFICE MEMORANDUM

DATE: October 22, 1969

SUBJECT: MINUTES OF OPERATIONS COMMITTEE MEETING - OCTOBER 20, 1969

TO: Operations Committee

FROM: Gene Cronin *gjc*

Attendees: Ken Olsen  
Win Hindle  
Pete Kaufmann  
Nick Mazzaresse  
Stan Olsen  
Ed Savage  
Gene Cronin, Recorder

The entire meeting was devoted to a review of the September 1969 Management Report.

ASSIGNMENTS

Fred Gould will complete an ROI analysis on five opportunities for investment - all designed to increase the module business. He will also run an ROI analysis on K-series modules.

Pete Kaufmann will decide this week whether or not we should make our own disks.

Four PCP's are imminent:

Stan Olsen will see that a PCP is submitted for the PDP-15.  
Nick Mazzaresse will insure that a PCP is submitted for the PDP-8.  
Win Hindle will have PCP's submitted on the PDP-10 and PDP-12.

Pete Kaufmann will make available for inclusion in the next issue of the Management Report a copy of the chart he uses to show what we are building.

Bob Lane will be asked to come to a future Operations Committee meeting to talk about his product line. The presentation should include a synopsis of the on-going work and future plans and should not address accounting problems.

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Minutes of Operations Committee Meeting - October 20, 1969

Bob Lane will head a committee to look into the status of the parts inventory for the TU-79. (He will report back to the Operations Committee.) Other members of this committee are Bob Savell, Bill Hansen, and Arnold Sherman.

Pete Kaufmann will ask Henry Crouse to come to the Operations Committee meeting on October 27, 1969, to discuss purchasing procedures, system and controls. Ed Savage will include a copy of the audit report on the purchasing function with the agenda information.

Ted Johnson will explain next Monday why first quarter sales expenses for Canada and the Mid-Atlantic region were above budget.

Ed Savage will write a single definition for the term "backlog" and will look into the billing situation. He will report back to the Operations Committee.

Stan Olsen will ask Al Hanson to come to an Operations Committee meeting to explain his operations in general. He should specifically explain why his building maintenance expense was \$11K over budget.

## DISCUSSION

The following product managers made presentations on their operations to the Committee: Fred Gould, John Jones, Al Devault, Bob Lane, Bob Savell, Bill Long.

### Modules

Fred Gould told the Committee that overshipments resulted in reduced selling costs and lower than budgeted manufacturing costs during the first quarter. He thinks the same conditions will prevail in the second quarter. An increase in bookings is planned in the third and fourth quarters. It is essential that the sales force be on board before that time. If an economic slowdown in the country should occur, Fred feels that modules would see it first, since they would be affected by inventory cutbacks. He does, however, feel that sales would soon bounce back. Fred reviewed the competition and made the following observations: Data Tech and Control Logic are not seeking growth; Honeywell has no module salesmen but sells through their computer salesmen; Honeywell module sales approximate \$8 million; SDS is making modules only for their own computers.

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Minutes of Operations Committee Meeting - October 20, 1969

## PDP-9/15

John Jones says that we are facing a 60 day delay in customer commitments. This situation is no better or worse than previously. This delay could cause a lack of income in the second quarter. The RS09 problem was discussed. This delay is worth  $\frac{1}{2}$  million sales allocations.

## PDP-14

Al Devault says that he will submit a PCP for the third and fourth quarters to include the K series.

## TPL

Bob Lane discussed the accounting problems he is having which resulted in \$65K in erroneous charges.

## PDP-10

Bob Savell told the Committee that his bookings were  $2\frac{1}{2}$  times budget. A discussion of billings and backlog ensued.

## PDP-8

Bill Long advised the Committee that the future on the 8 looks good. It is approaching the biggest quarter yet. Some new business will have to be obtained to make \$16.8 million sales. We have \$14.6 million in hard backlog for the second quarter. If we recover from the disk problem in early November, we will make second quarter goals.

GC/ml

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# INTEROFFICE MEMORANDUM

DATE: October 16, 1969

SUBJECT: Party Line on Responding to Customers

TO: Operations Committee

FROM: Ted Johnson

In-Plant Management and other personnel should:

1. Never give statements on status or commitments, but express interest and concern, and get the facts and complaint clear.
2. Inform the sales representative or office manager and get his views.
3. Make sure we get an answer.
4. Have the sales engineer transmit the agreed-upon answer.
5. Back the salesman up with a letter of support when desirable.

In turn, field people should protect the plant from calls as much as possible and particularly not direct customers to call other than the marketing personnel involved with the problem.

I'd like to get your views on stating some rules such as those suggested above.

mr





# INTEROFFICE MEMORANDUM

DATE: October 13, 1969

SUBJECT: PROPOSAL TO ESTABLISH A SPECIAL PROJECTS GROUP  
WITHIN THE PROGRAMMING DEPARTMENT

TO: OPERATIONS COMMITTEE

FROM: LARRY PORTNER  
JIM BELL

## SUMMARY

With the constant growth of the Programming Department, it is increasingly difficult to keep abreast of problems, much less to anticipate them.

Our present organization deals effectively with problems associated with a particular project or product line. It is less effective in coping with problems which cross product boundary lines or lack a short-term payback. There are many such problems whose solution would have a large medium-term payoff for DEC.

We propose that a Special Projects Group be established within the Programming Department to deal with selected problems of this type.



# BENEFITS TO DEC OF A SPECIAL PROJECTS GROUP

1. The direct and most obvious benefit to us will be progress in solving problems that are now being ignored. The problems attacked will be carefully selected for their relevance to new or improved software products.
2. Because of the nature of such a group, it will attract a set of unusually talented individuals. The expertise of these people is sure to fill a useful advisory role within the department.
3. The existence of such a group will aid us in the recruitment of high-caliber individuals who desire the opportunity to tackle less well defined problems. These people are often the same ones who would make a particular contribution to our department's creativity.
4. A special projects group will provide a vehicle for encouraging our top people to update themselves technically from time to time via projects broader than their usual tasks.
5. In short, a special projects group will provide the programming department with the kinds of benefits associated with an R & D group. However the emphasis will be heavily on applied rather than "blue-sky" projects.



#### STAFFING

The group would initially consist of a group leader and three carefully chosen project leaders. We propose additions to the present budget of 3 men at an expected cost of \$7.5K/man quarter, beginning with third quarter. Since the projects will be chosen for their relevance across product line boundaries, we propose funding from the Shared Projects budget.

The initial projects will all involve no more than one man year of effort. This will facilitate prompt evaluation of the group's success for termination or expansion if indicated.



## INITIAL PROJECTS

It will be difficult to obtain the specialized talents needed for the group. For this reason we have selected four initial projects. The three actually performed will be determined by the interests and skills of the three individuals involved.

The proposed initial projects are investigations of the following topics:

### 1) Systems Programming in Higher Level Languages

The scarcest of our resources is programming talent. The use of higher level languages for system programming is a possible way to stretch that talent by enabling the writing and debugging of programs faster and at lower cost. Furthermore, such programs would potentially be transferable between product lines in much the same way as FORTRAN applications programs.

The initial phase of the investigation would include an exploration of the relevant work by our competitors (notably Burroughs) and our customers (notably Carnegie). It is desirable that the project reach the point of actually coding some systems program in a higher level language. Only in this way can we evaluate the extent to which the theoretic promises of the approach are fulfilled in practice.



## 2) Microprogramming

Microprogramming is an important emerging technology. What does it imply for DEC? Will our programmers soon be writing assemblers and compilers for microcode? Writing them in microcode?

Where is the optimum tradeoff between steadily more expensive programmers and steadily less expensive circuitry? Does microprogramming provide a way to cut programming costs? Should we care whether microcode is read/write or read only? How does the architecture of a microprogrammable machine affect the programmer?

Answering these and related questions appears to be a fertile and vitally important area for investigation. The answers discovered will be of interest to many groups within the company.



### 3) Algorithms for Arithmetic and Basic Functions

We provide function evaluation software (for sine, log, etc.) for all our computers. On smaller computers even arithmetic is done mostly by programs. Yet we lack a systematic groundwork of knowledge for improving these programs on existing computers and providing them on new ones.

Since much of the work done by our customers is numeric, such programs are of vital concern to them. The running speed and accuracy are both areas which can be improved.

Furthermore, the numerical analyst who would undertake this project would provide a consulting expertise which our department needs but cannot yet justify on a full time basis. He might also evaluate the numeric implications of proposed hardware (including EAE's, optional floating point, etc.)

This project should provide a general systematic framework for understanding basic numeric algorithms. It should also provide a set of specific suggestions for each of our existing computers.



#### 4) Modeling and Measuring System Performance

Too often, after its completion a complex software system is black box to us. We know whether it is executing satisfactorily (i.e. few customer complaints). But we don't know why. In particular, we are unsure of the section at which application of additional effort would prove most fruitful. We have solved particular cases of this problem, e.g. for PDP-9 FORTRAN. But we have not developed a general mechanism for measuring software. Such a mechanism would facilitate improvement of every program produced by our department.

With modeling techniques it should be possible to carry this process even further. Software systems can be modeled in the planning stage. In this way trouble spots can be spotted and removed before programs are even written.

This project will develop modeling and measuring techniques and show how they can prove their value on our various computers.



DATE: October 24, 1969

SUBJECT: FJCC Attendees

TO: Operations Committee

FROM: Roy Gould

The following is a list of all the names I have as of this date to attend the Fall Joint Computer Conference. I have scheduled a total of 14 people per shift on booth duty at all times during the show.

STAN OLSEN

Bob Lane —  
John Jones —  
Bob McInnis —  
Rob Katz  
Len Halio  
Fred Gould  
Evelyn Dow —

NICK MAZZARESE

Roy Gould  
Tom Hayes  
Gabe d'Annunzio  
Steve Bowers  
Pam McGinley  
Linda Towle  
Ed Geithner  
Denny Goss  
Bill Long —  
Dick May —

BREWSTER KOPP

John Bellantoni (?)

PETE KAUFMANN

No one

WIN HINDLE

Ken Stone\*  
Chuck Conley\*  
Tony Lauck\*  
Martha Sifnas\*  
VT15 Programmer (person unknown  
Ed Kramer\* at this time)  
Dick Clayton\*  
Rick Faubert  
Bill Kunkle\*  
Bob Savell\*  
Dave Cotton\*  
Mark Abbett  
Peter Koch

\* Also attending DECUS

TED JOHNSON

John Leng	Don Barker
Ed Stewart	Bob Willis
Ernie Frost	Dean Bergeson
Dave Slotnick	Bob Sumrall
Vern Poulter	Don Lavallee
Don Larson	
Fred Barla	
Al Beal	
Ken Larsen	
Ed Fredrickson	
Gil Fair	
Ron Brunner	
Ron Carter	
Jerry Witmore	
Peter Palm	

jac





# INTEROFFICE MEMORANDUM

DATE: October 16, 1969

SUBJECT: ATTENDANCE AT FJCC/DECUS

TO: Operations Committee

FROM: Ted Johnson

I propose that our DECUS meetings should have the following service from Digital:

1. Product Line Marketing, Engineering and Software - (approx. 15)

Major product lines (8, 15, 10) should be represented on all three counts. Often the Programming Department will be asked to send somebody to fill the programming role.

2. Sales Representation - (6 - 20)

Many questions are encountered that are best handled by available sales personnel, either on the floor or in a Digital suite.

Local personnel can pick up this responsibility. Senior personnel should be available if possible.

3. Software Support - (6 - 10)

Software Support Specialists are those closest to customers on problems of using the computers. They would be very helpful in handling questions and relaying problems, ideas and answers.

The DECUS meeting in Las Vegas this year will have 800 - 1,000 customers there. I think fairly heavy local attendance (10 - 20), sales and software support, and at least 15 product line personnel are well worth it.

In the case of the European DECUS, we should have had more local help and possibly a few less Maynard people, although I think there is a platform of effective representation with little increase for increases in user attendance.

Two other rules are recommended:

1. We try to see that senior men in the company (Marketing Managers, Programming and Engineering Managers, and Field Managers) each get to a DECUS meeting at least once.
2. Field personnel get to those meetings which are most convenient to their area.

I think our senior people should make an effort to visit these combined shows and DECUS meetings and listen to some of the key sessions.

mr



# DEC EMPLOYEES REGISTERED FOR THE DECUS FALL 1969 SYMPOSIUM

Angela Cossette	Maynard
Tony Lauck	Maynard
William A. De Simone	Maynard
Robert L. Anundson	Albuquerque
Arnold Anderson	Albuquerque
R. L. Lane	Maynard
Nick G. Pappas	Maynard
John A. Jones	Maynard
Ken Stone	Maynard
Leo Shpiz	Waltham
Bob McInnis	Maynard
Evelyn Dow	Maynard
W. H. Long	Maynard
Michael H. Craven	Salt Lake City
Gilbert S. Fair	Northbrook
Robert E. Savell	Maynard
Douglas Dymont	Corleton Place
David Baer Cotton	Maynard
Charles H. Conley	Maynard
W. J. Meserve	Los Angeles
Richard May	Maynard
Ted Sarbin	Palo Alto
Richard DeJohn	Maynard (Palo Alto)
Karl Lederer	Anaheim
Martha Sifnas	Maynard
Bill Segal	Maynard
William Kunkle, Jr.	Maynard

The following people have made room reservations at the Flamingo, but to date have not registered for the meeting. (People can register the day of the meeting.)

Larry Wade	Palo Alto
Robert Randolph	Washington, D.C.
Walt Luse	Washington, D.C.





# INTEROFFICE MEMORANDUM

DATE: October 6, 1969

SUBJECT: FALL JOINT COMPUTER CONFERENCE

TO: Operations Committee  
Marketing Review Committee

FROM: Ed Kramer, FJCC Marketing  
Coordinator  
Gabe D'Annunzio  
Roy Gould

We propose that our exhibit at FJCC be directed at transmitting the message "WE HAVE MORE TO OFFER OUR CUSTOMERS THAN ANY OTHER COMPANY IN THE SMALL COMPUTER FIELD". The PDP-8, PDP-12, PDP-15, and Modules will participate. Included in the presentation, however, will be DEC's peripheral-equipment capability, software services, field service, and an "OEM" display.

## Product Participation

PDP-8 - A four-user FOCAL system will be shown and will consist of a table-top PDP-8/L, one additional table-top cabinet for the BA08 and DCO2, plus five Teletypes.

PDP-12 - A PDP-12A (scope, tape, and A/D) plus a TC58/TU10, a plotter and control, and real-time clock will be shown. Special software to demonstrate these peripherals will be used. The TU10 transport will be introduced in this exhibit.

PDP-15 - A PDP-15/30 system plus VT15 graphics will be shown. The new low-cost VT15 graphic system will be emphasized.

Modules - A small Module exhibit is planned for the literature area where Module Handbooks will be distributed.

## Product Literature

It is intended that a large number of paperback manuals be distributed. These will include the new Logic Handbook, the new Small Computer Handbook, Introduction to Programming,



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and the new FDP-10 Manual. Other product literature will be available; however, people will be encouraged to fill out literature-request cards instead of taking this additional literature with them.

### Exhibit Strategy

The strategy will be to attract people into our booth through the use of a special demonstration running in one corner, and then move this group of people through the booth with the use of lighting and specially-designated demonstration girls who will talk about the products and the exhibits and move the group from one part of our exhibit to the other, the entire exhibit being traversed in approximately ten minutes. During this time, a short talk will be given on the PDP-12, DEC's peripherals, the PDP-15, software services, field service, OEM business, and the presentation will finally end at the multi-user FOCAL system where people will be invited to sit down and get their hands on the equipment or filter back to any of the other parts of the exhibit.

The rear of the booth will be separated into a literature distribution area, a small office area, and two small conference rooms. The conference rooms will be used by marketing or sales people on an appointment-only basis. Secretarial service and phone messages will be handled by a girl in one of these offices.

### Physical Layout and Presentation

"Refer to the attached diagram."

The equipment will be exhibited on a raised platform in the shape of an "L" that will be 8-feet wide and 18-inches to 2-feet high. The platform will be white, vinyl tiled, and the rest of the booth area will be covered in brown carpeting. The equipment will be lit by spotlights above the circular center fixture of the booth.



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The presentation will begin by having the lights dimmed in the exhibit area and one spotlight pointing at the PDP-12 in the corner which will be running a program that utilizes moving DECTape reels and an audio presentation that will attract passerbys into the booth area. One of our demonstrators will come out at the appropriate time and give a two- or three-minute presentation on the PDP-12. She will then walk toward the PDP-15 in the corner while the lighting dims at the PDP-12 and spotlights the peripherals that she is passing. While walking toward the PDP-15, she will briefly discuss these devices. Arriving at the PDP-15, which will then be lit with spotlights, she will give a two- or three-minute presentation on the PDP-15 and VT15 graphics system. At this point, our demonstrator will walk away from the -15 toward the multi-user FOCAL system passing a graphics presentation made up of "LOGO's" from our OEM's that will be used to enforce our OEM-user orientation. She will be commenting on company capabilities, such as software support and field service, as she goes. Arriving at the multi-user FOCAL system, a two- or three-minute presentation will be made, and then the onlookers will be invited to utilize the system with assistance from our demonstrators. The rest of the booth will then be lit, and the onlookers will be invited to ask questions of any of our experts who will be located by their respective equipment.

This presentation procedure is planned for once every half hour to 45 minutes. It will be done in a professional manner and utilize lighting and sound to emphasize and highlight both the equipment and the company's overall capability.

#### Booth Manning

The equipment areas will be manned by people from the marketing groups or others specifically designated by the appropriate marketing managers. Pam McGinley and Linda Towle of the Advertising Department will act as our demonstrators. Two additional girls will be utilized in distribution of literature. Secretarial and Kelly Girl service for telephone calls and literature will be provided. Approximately ten salesmen will be assigned to booth duty, five at a time in 4-hour shifts. These salesmen will be assigned to the Show for ALL THREE DAYS.



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During off-duty day-time hours, assignments will be made to have our salesmen look into specific exhibits of our competitors and report any pertinent information, which will be edited and later distributed.

A pre-show briefing will be held at breakfast on Tuesday morning, and all people manning the booth will be REQUIRED to attend. Advanced information and party-line data will be distributed to all DEC personnel involved at least one week prior to Show time.

#### Costs

The estimated cost of our participation in FJCC, not counting individual transportation and hotel expenses, is as follows:

1. Booth space	\$ 9,600
2. Shipping of equipment and booth	5,000
3. Services at Show	2,000
4. Graphics and new materials	<u>6,000</u>
<u>TOTAL</u>	\$22,600

These expenses will be allocated to PDP-12, PDP-15, and PDP-8/L equally.

#### Responsibility

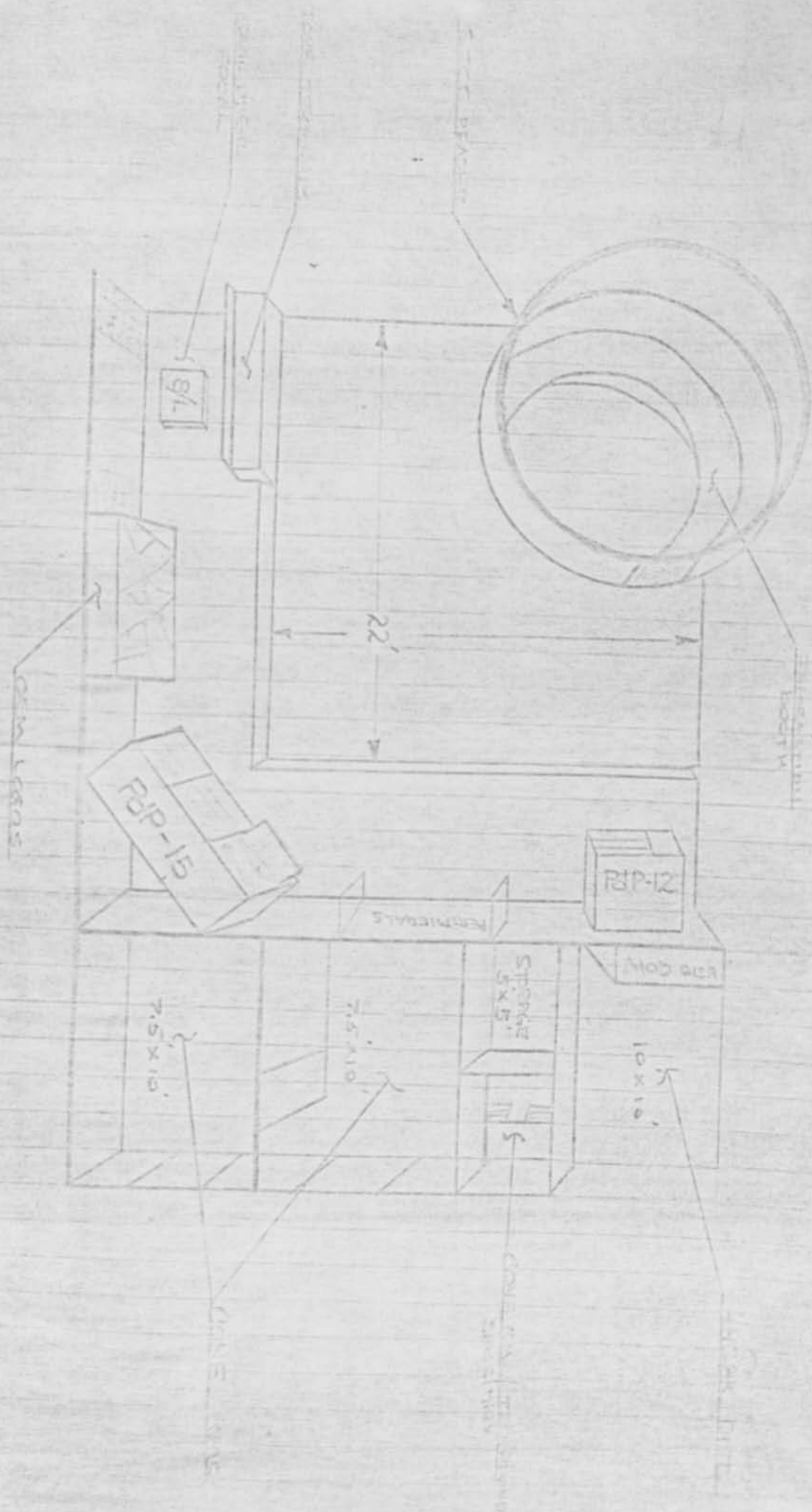
Ed Kramer is designated as Marketing Coordinator and will coordinate product-line activities, salesmen and marketing staff pre-show briefings, and show presentations.

Gabe D'Annunzio is designated as Advertising and P-R Coordinator and is responsible for generating the graphics for the exhibit, special literature, and press and public relations.

Roy Gould is responsible for all show arrangements, including transportation, setup, tear down, accommodations, and all the other details involved in making a successful show.

nam  
attachment









# INTEROFFICE MEMORANDUM

DATE: October 6, 1969

SUBJECT: Organization/Personnel Announcements

TO: Operations Committee

FROM: G. A. Thayer

The attached proposal has been revised consistent with suggestions made by the Committee so as to utilize existing newsletters, etc. for distribution of organization/personnel announcements.

Approval is requested.





# INTEROFFICE MEMORANDUM

DATE: October 6, 1969

SUBJECT: Organization/Personnel Announcements

TO: Operations Committee

FROM: G. A. Thayer

Proposal: To establish within the Personnel Department, the responsibility for coordinating the release and distribution of approved organization/personnel announcements to all managers in the Company.

Current Problems:

- 1) No central function exists to insure the timely and complete distribution of organization/personnel announcements to management. The Sales Newsletter, special memos, On-Line, etc. are used to varying degrees.
- 2) Several managers are often not notified of organizational changes and personnel announcements.
- 3) Announcements are frequently made on manager/supervisor appointments without prior approval of the Operations Committee member.
- 4) Organization charts/lists of managers and supervisors are impossible to keep current without this information coming to the Personnel Department. Frequently, we receive no notification of these changes. This information is essential and affects other key areas of personnel administration.
- 5) Announcements are frequently incomplete, carry improper titles, lack clarity, etc.

Proposed Procedure:

Organization and Personnel Announcements shall be routed by the department manager to his appropriate Operations Committee member for approval.

Upon approval, announcements will be forwarded to the Personnel Department (G. A. Thayer) for distribution as specified by the manager, via one or more of the following:



Page 2

Organization/Personnel Announcements

G. A. Thayer 10/6/69

\_\_\_\_\_Sales Newsletter

\_\_\_\_\_On Line Newsletter

\_\_\_\_\_Maynard News Bulletin

\_\_\_\_\_Individual Memo





# INTEROFFICE MEMORANDUM

DATE: October 22, 1969

SUBJECT: Special Payment Terms

TO: Operations Committee

FROM: Don Summers

One of the areas we have encountered in the collection of receivables concerns the problem of extended terms, whether by implication or specifically stated as such. This situation exists because of several conditions, noted below, and I would estimate we are carrying upwards of three million dollars related to such conditions.

1. Customers specifically request an extension of payment terms because of financial or other extenuating circumstances.
2. Customers specify that certain technical conditions must be met ( example -- special acceptance tests) which cannot be fulfilled in 30 days.
3. Customers arbitrarily decide, after equipment shipped, that they will pay only on acceptance.

Because of the cost of borrowing and the return we are able to realize on our own reinvestment of capital we should not have to finance these receivables. I therefore propose it be a corporate policy that any customer requesting an extension of payment terms, either specifically as such or via a technical requirement, must be charged a predetermined rate of interest or must allow us to assign the resulting receivable to a financial institution at their appropriate financing charge. The clause would be written into the contract at the time of negotiation and our interest rate would be set by the accounting department based on financial conditions at the time. I would anticipate that this charge would be the existing prime rate plus an additional 1% per month.



If we choose to carry the receivables ourselves then, according to calculations supplied by John Fisher, we could save \$850,000 in taxes (based on \$3 million of extended receivables) if the receivable were structured as an "installment receivable". The tax benefit could be achieved without altering our present method of handling the reporting of sales on our statements.

It would be most difficult to charge interest once a machine was shipped and a customer is holding payment until acceptance, unless previously negotiated. However, an interest policy could be an effective collection tool by our stating to such a customer that corporate policy would dictate an interest charge on future orders if they persisted in holding all payments until acceptance.

DES/cab





# INTEROFFICE MEMORANDUM

DATE: October 14, 1969

SUBJECT: Audit of Purchasing-Report #69-2  
Agreements-Results

TO: Brewster Kopp  
Ed Savage

FROM: A. R. Craffey

Met with Henry Crouse, Lou Beaupre, Tom Cook of Purchasing Department on September 2, 1969 to discuss audit findings and recommendations.

Agreement was reached "to take corrective action in areas of apparent deficiencies. Further, would review policies and procedures on a regular basis to insure they meet current needs".

Discussion was held on audit points contained in the June 24, 1969 Audit Report, with decisions rendered as follows:

## Finding

Item 1. Purchasing reaction - "throughput of purchase requisitions is not a criteria for buying efficiency". Monthly explosions for 3000 part numbers are often issued on a single Bill of Material requisition.

Conclusion - Agreed that actual volume count of purchase requisition received would be difficult to achieve. General measurement of efficiency of processing will be number of unfilled requisitions and untyped purchase orders on a weekly basis (each Friday afternoon). This will represent the Department's operational backlog.

Item 2. Purchasing agreed to "establish three typing pools to improve order processing".

Comment: Purchasing has 3 operating groups with varying assignments reporting to a Buyer-Supervisor.

Item 3. Purchasing concurs, and will establish that "Purchase Orders will be issued in blocks by the three separate girls and will be kept secure by lock and key after working hours". Sub-journal records will maintain number issue control.

Item 4. Concurrence was reached that "bid files will be maintained by each group supervisor (including a bid summary) for orders over \$10,000. Single orders in excess of \$5,000 will have bids, and where prices are obtained by telephone-the bids will be summarized on the back of the purchase order file copy".

Item 5. This recommendation was tabled for the present. The question will be resolved at a later date based on results obtained from the operations at Leominster and Westfield.

Comment: the separation of Receiving from responsibility to the Purchasing Agent as a



control measure should not be overlooked. The assignment for responsibility needs management decision.

Item 6. "Generally agreed that the buyers should sign own orders." Range deemed appropriate was \$0-\$1,000 which will be reviewed in six month intervals.

Item 7. Agreed that Accounts Payable rule could be revised to:

A. "Price variation of any amount will cause a change order to be initiated by the buyer."

B. Quantity variation will require the signature of the requisitioner.

Item 8. It is Purchasing opinion that the "Traveling requisition offers no advantage to our present paperwork system". Purchasing's added comment was that orders are based on direction of Inventory Control and that this method would leave Purchasing little history data on purchases made.

Comment: The use of the Traveling Requisition intends to eliminate the preparation and issuance of a Purchase Requisition-not the Purchase Order. History of prior purchases would be available as the Traveling Requisition is received for processing of the order.

#### Observations and Pertinent Comments

1. Purchasing has a plan underway for a completed set of operating procedures by March 1970.

Comment: Employing the services of a qualified Planning and Procedures employee, these procedures could well be issued in the near future.

2. Purchasing agrees to standardize all Company purchases where possible

3. (a) Findings involve particularly the circumventing the purchasing routines by Maintenance personnel-notably Al Hansen and Pete Mackey. Verbal contracts are issued, work completed and invoices received prior to Purchase Orders being written. Those vendors involved are: MacDonald Plumbing, Bonnazoli, N. E. Engineering, Hope Rubber and Maynard Supply.

(b) Purchasing contends that contacts are being made with vendors when ever excess prices are noted. "Open-end" contracts terminology refers to blanket or annual contracts.

(c) Cooperative effort exists with Traffic Department as regards Freight-In charges-such being reviewed and followed up for correction of charges.

ARC/am



DATE: August 26, 1969

SUBJECT: Audit of the Purchasing Department

TO: Pete Kaufmann  
Ed Savage

FROM: A. R. Craffey

An audit made during May - June 1969 period is summarized for review and consideration of corrective action required.

In general a systems review to establish Purchasing Standard Operating Procedures (S.O.P.) should be undertaken in streamlining the work flow, defining the employees responsibilities and to establish internal control practices and records.

Findings include the following:

A. Control

1. Lack of control over Purchase Requisitions. No record is made of the volume received, or their assignment to respective Buyers.
2. Insufficient control maintained over pre-numbered Purchase Order Inventory which possess a "blank check equivalent". Assignments made by "blocks" - should be issued sequentially on a daily basis (on a need basis).
3. Excessive "back-log" in Purchase Order issuance. Approximates delays in issuance of 2-3 weeks to the disadvantage of Accounting and Receiving Department / Production.
4. Individual Buyer approving variances between Purchase Order and Invoices received. This provides opportunity to gloss over personal errors and provides avenues for price manipulation.

B. Records

1. Current log of "block" purchase order assignment, fails to consider entry of Purchasing dollars committed. Also, the record does not provide a day to day basis for measurement of the Buyers performance.
2. Purchasing "bid-record" maintenance and composition fails to establish a reliable basis for evaluating orders placed on a competitive basis. These records should be under centralized file control and should consist of a "bid-worksheet," listing the vendors contacted, the listing of "bids" received and establish the award of contract on the best terms available.
3. No record is maintained over the "rush or emergency" type orders placed. Since these approximate 50-60% of Purchase Requisitions received, the use of the Traveling requisition should be considered to establish minimum-maximum quantities based on usage. Use of this format could easily cut the paperwork by two-thirds (2/3) and save processing time by the requisitioner in re-ordering commonly used items.

Procedures and Organization

1. The Receiving Department reports to and is responsible to the Purchasing Agent. To insure independence of operation without undue influence of individual Buyers, this function should be separately established reporting to Material Control. Responsibility should be



to accurately count and resolve problems regarding receipt and delivery, and to expedite receiving reports to Accounts Payable.

2. To speed up internal processing and issuance of Purchase Orders, a "typist-pool" should be considered in spreading the work-load, and to speed up the paper flow to requiring departments.
3. Procedures should grant emphasis to delegation of responsibility to specific Supervisors in achieving operational efficiency. This delegation should further consider authorities necessary in fulfilling such responsibility.
4. Rotation of Buyer assignments should lead to improvement of abilities and ensure proper coverage during absences or terminations.

Planning and effort should be directed towards achieving acceptable performance standards and serve to measure Purchasing fulfilling its Company responsibility.

ARC/ba



DI GI TAL EQUI PMENT CORPORATI ON

I NTERNAL AUDI TI NG

Report # 69 - 2

Audit of Purchasing Department



Digital Equipment Corporation  
Internal Auditing  
Audit of Purchasing Department

Date of Report: June 24, 1969

Purpose and Scope of Audit

Audit of Purchasing Department was made during the May-June 1969 period, to evaluate the effectiveness in meeting responsibilities, and to insure conformance to established policy and procedures. The Digital guideline audit program was used in determining compliance with acceptable accounting practice.

Particular attention was given to the existing policies, organization, departmental plans, and the practices which establish internal control.

Summary of Audit

Evaluation of written policies and procedures indicates need to standardize these into specific instructions in placing responsibilities within the organization. Each individual should be aware of his responsibility, his authority and his relationship with other members of the organization. These instructions should deal with the required control over incoming Purchase Requisitions, the basis upon which competitive bids are required, the steps to follow in awarding the contract and the urgency in speeding up internal processing of the Purchase Order.

Delegation of responsibilities should involve planning for developing adequate sources of supply, encouraging competition in minimizing costs, and overall improvement in the department's operating efficiency.

The Purchasing Management have recognized certain of these deficiencies, and have undertaken corrective changes in the organization structure, and in systems, to streamline the procurement activity.

Findings:

1. Incoming Purchase Requisitions are not adequately controlled as to volume of work-load, or volume per individual Buyer. Other than being "date-stamped" and delivered to the Buyer, there is no data available to measure the time required to place each order, or the performance (volume) being produced.

It is recommended that a log-record be established and maintained on a daily basis, by volume, by Buyer.



2. The Purchase Order Log as maintained reflects block assignment of "blank" Purchase Orders to each Buyer. Entry is made of the Purchase Orders as issued, by vendor, and Buyer. However, this record fails to indicate the total purchase order amount committed, or the date of placement of the order.

Since the purchase order forms are equivalent to blank checks, proper safeguards should be established over the inventory. This should consider assigning the responsibility to a Secretary who would control and release blank Purchase Orders on a sequential daily basis to secretary-typists, and accumulate the dollar amounts of orders placed.

Recommend that sequence control be established and maintained currently, to determine volume of production and total funds committed.

3. A "back-log" in the issuance of Purchase Orders has been in existence for some period of time (currently approximates 1-2 weeks). This adverse situation has created problems in the payment processes within Accounting, and in the proper receipt of materials into the Receiving Department.

Discussion held on this subject established agreement that a "typist-pool" should be considered in spreading the work load (somewhat contrary to the present secretarial concept). This would also serve to eliminate double-handling of the same document. When implemented, this would provide the above mentioned departments with the required documents on a timely basis.

4. The review of the organization structure of Purchasing indicates that the Receiving Department reports to and is responsible to the Purchasing Agent.

The responsibility for placing the contract at the right price, right quality and quantity, and delivery rests with the Purchasing Department. The responsibility to independently receive, count, and deliver the material received is that of the Receiving Department.

To this end, recommendation is that the Receiving Department be established separate and independent of the Purchasing function, reporting directly to Material Control.

5. The requirement under which competitive bids are required other than for specialized purchases, should be established on a dollar basis. This would provide a guideline requiring circularizing of "bid" solicitation to suppliers.

Each Buyer would know specifically what is required, what his authority is, and what authority is required in placing orders on other than the lowest "bid".

Recommend that an amount of \$250.00 (or similar acceptable amount) be considered as the basic limit requiring utilization of bids from at least (3) suppliers. This would involve expansion of current efforts by Purchasing to place all blanket and



annual type Purchase Orders on a competitive "bid" basis, and would include all contemplated future commitments.

A review of the Maynard Supply blanket-order contract has been made by Purchasing. All items purchased during the contract have been listed and circularized to various interested suppliers. Indication is that lower prices are available on certain items, by other bidding vendors. A re-listing of these lower prices will be re-circulated to the lower bidders for re-bidding on the entire package. Similar action will be taken on all annual or blanket-order contracts periodically.

Audit attempt to review the "bids" received on particular purchase orders indicates that "bid" files are incomplete and fail to provide a useable media for review. The filing and recording of "bid" practices are pretty much left to the discretion of the individual buyer.

Recommend that a policy be formulated, which would standardize the bid practices to a common basis, and provide accessible means for future review of placement of Purchase orders on the best terms.

A "bid" work sheet should be established, which would recap pertinent information as to vendors contacted, how contacted, listing of "bids" received, and the vendor to whom award of Purchase Order will be made.

6. Purchasing is currently experiencing a number of rush or "crash" buying requisitions (approximated to be 50-60% of total received). Such situation is generally indicative of deficient procurement planning and/or failure to establish proper economic inventory levels or minimum quantities to be maintained.

To alleviate this problem, Purchasing should consider incorporating the media of the Traveling Requisition in streamlining this procurement cycle. The advantages to be derived are: establishment of minimim-maximum stock quantities with re-order points, historical background on prior purchasing and a record of useage. The use of this form could well result in cutting the paperwork by two-thirds (2/3).

Recommend that Purchasing consider use of this form in better deciding economic order quantities to be purchased, and in cutting the work load now experienced.

7. As established under current policy, the Purchasing Agent reviews and signs all Purchase orders in the range of \$0-25,000, with the Manager of Purchasing responsible for those from \$0-250,000. (Capital Equipment Authority).

After discussing these responsibilities and the pending plans for organizational changes, delegation is to be made to (2) Supervisors (each with (3) Buyer responsibility) to review and approve P.O.'s issued to a maximum limit of \$10,000.

In furthering processing efficiency, it is recommended that consideration be given to delegating to the individual Buyer authorities on non-competitive type purchases, to a limit of \$500.00.



(a) During the audit of Accounts Payable (which was covered in the audit report issued) invoice variances up to \$25.00 are being processed automatically - those in the \$25-100.00 are sent to the Purchasing Buyer for approval.

This practice permits the individual Buyer blank-check authority to cover over personal errors, and provides avenues for possible manipulation of prices being charged.

The Purchasing Agent and Manager of Purchasing agree in principle to this guide rule: "a variance in excess of \$10.00 or 10% in quantity (this criteria generally accepted in most industries) would necessitate issuance of a Change Purchase Order or direct approval of the requisitioner (with the budgetary responsibility)." Also, that all requests from Accounts Payable involving invoice problems, or need for purchase orders should be directed to the Purchasing Agent (Lon Beaupre) and/or Supervisor for handling.

Note: All requests for receiving information and/or Receiving Reports should be made directly with the Receiving Department Supervisor, Phil Feehan.

8. Other areas involving the need to establish covering instructions are as follows:

a. Purchasing Buyers should assume the responsibility for a review of requisitions to determine that allocation of expenses to individual Cost Center by account number has been completed by the requisitioner. A memo dated June 20, 1968 issued by L. Beaupre should be re-circulated to the Buyers. In situations where the requisitioner fails to comply, result would be non-action and involve delay in placing orders.

b. Any award of any Purchase Order on a basis other than lowest price, must be submitted to the Manager of Purchasing or Purchasing Agent for review and approval before processing.

c. Buyers should review Purchase Requisitions to determine that the requisitioner has been authorized to originate expenditures pertaining to the particular cost center. These should be limited to authorized approvals as established by the Operations Committee.

d. In every possible instance, Buyer's should strive to solicit competitive bids to gain the maximum advantage for the company. In so doing, proper consideration should be given to shipping terms, routing of shipments and taxes involved.





# INTEROFFICE MEMORANDUM

DATE: April 29, 1969

SUBJECT: Authorized Approval Authority Chart

TO: E. Savage  
R. Dill

FROM: A. R. Craffey, Auditor

The attached format presents an Approval Authority Chart, which when properly maintained serves to continually define lines of authority and functional responsibility of each executive, supervisor and group leader for each division and cost center. In addition, this type chart provides a media which exerts definite checks and appraisal of the effectiveness with which these delegated responsibilities are being discharged.

Acceptance of this type format will result in a complete, concise, and usable control media for advantageous usage in Accounting (Accounts Payable and Petty Cash), Purchasing, Shipping-Receiving, Personnel and Stationery Supplies.

However, certain clarifications are required, preliminary to establishment of this chart as being authoritative. Since this proposal contains a composite of authorities historically in existence, consideration must be given to determine applicability under present-day conditions. This consideration should include approval practices to cover Invoice approval, Debit Memoranda and issues from Office Supplies Stockroom.

Other items which require clarification are:

1. Regarding Travel Advances - who may approve advances in excess of \$250?
  - a. On purchases of miscellaneous type items (to limit of \$10) - who will approve?
2. On Purchase Requisitions - what is the authority approval whenever limit of \$100 is exceeded?
  - a. Whenever limit of \$5000 is exceeded?
3. On Inventory Requisitions - define Unlimited Authority.
4. S.B.A. Authority - what are the items involved, what is dollar limit, what involvement with shipping, etc.?

Assuming a thorough review and resolution of added authorities required, this Approval Authority Chart would become authoritative media for use in establishing the control required for incurring expenses, and further establish delegated responsibility with cost centers. Such delegation would encourage subordinates to exercise judgment, initiative and constructive thinking but is not intended in any manner to detract from the basic responsibilities of the managers involved.

ARC/ml



DIGITAL EQUIPMENT CORPORATION  
AUTHORIZED APPROVAL AUTHORITY  
MANUFACTURING GROUP

Unlimited - President  
- Vice President (Peter Kaufmann)

CC#		Petty Cash	Purchase Requisition	Inventory Requisitions	S.B.A. Authority	Check - Signing Authority	Special Authority - (Limit)
325	<u>DRAFTING</u> Roger Melanson - <u>Supervisor</u>	Travel - to \$250.	\$1 - \$5,000.				
330	<u>MECHANICAL ENGINEERING</u> Loren Prentice - <u>Supervisor</u>	Travel - to \$250.	\$1 - \$5,000.				
335	<u>TEST EQUIPMENT SERVICE</u> J. Cudmore - <u>Supervisor</u>	Travel - to \$250.	\$1 - \$5,000.				
339	<u>PROCESS ENGINEERING</u> T. Stockebrand - <u>Supervisor</u>	Travel - to \$250.	\$1 - \$5,000.				
374	<u>PRODUCTION ENGINEERING</u> D. Knoll - <u>Supervisor</u>	Travel - to \$250.	\$1 - \$5,000.*	Unlimited			
386	<u>SPECIAL PROJECTS</u> J. Bardone G. Beckner E. Luttig Bill Owens Grant Saviers Pierre Schneebeli Arnold Sherman		\$1 - \$ 100. \$1 - \$ 100. \$1 - \$ 100. \$1 - \$ 100. \$1 - \$ 100. \$1 - \$5,000. \$1 - \$5,000.				

\*In Kaufmann's  
absence - Unlimi



	Petty Cash	Purchase Requisition	Inventory Requisitions	S.B.A. Authority	Check-signing Authority	Special Authority - (Limit)
86 <u>SPECIAL PRODUCTS (Continued)</u> Ulrich Skowronek Joe St. Amour - <u>Supervisor</u>	Travel - to \$250.	\$1 - \$ 100. \$1 - \$5,000.				
33 <u>BOARD PRODUCTION</u> George Wood - <u>Supervisor</u>	Travel - to \$250.	\$1 - \$5,000.				
34 <u>MODULE PRODUCTION "A"</u> Cy Kendrick - <u>Supervisor</u> Bill Brackett	Travel - to \$250.	\$1 - \$5,000.	Unlimited Unlimited			
435 <u>MODULE TEST</u> J. Cudmore - <u>Supervisor</u>	Travel - to \$250.	\$1 - \$5,000.				
36 <u>COMPUTER PRODUCTION</u> Bill Hanson Rod Schmidt Jack Smith - <u>Supervisor</u>	Travel - to \$250. Travel - to \$250.	\$1 - \$5,000. \$1 - \$5,000.	Unlimited Unlimited			
38 <u>MACHINE SHOP</u> Dan Sullivan - <u>Supervisor</u> John Trebendis	Travel - to \$250.	\$1 - \$5,000.	Unlimited Unlimited			
61 <u>PDP - 10 MANUFACTURING</u> F. Nardo - <u>Supervisor</u>			Unlimited			
190 <u>PURCHASING</u> Henry Crouse - <u>Supervisor</u> Paul McGaunn Bill Burns	Travel - to \$250.	\$1 - \$5,000.	Unlimited Unlimited	YES YES YES		Placement of Purchase Orders - \$25 to \$250X



CC#		Petty Cash	Purchase Requisitions	Inventory Requisitions	S.B.A. Authority	Check-signing Authority	Special Authority - (Limit)
490	<u>PURCHASING (Continued)</u> Bruce Fawcett Richard Federico Dick Heaton Tom Kennedy Bob O'Connor Pete Waldron Lon Beaupre				YES YES YES YES YES YES YES		
491	<u>MANUFACTURING ADMIN.</u> Dave Knoll P. Kaufmann - <u>Supervisor</u>	Travel - to \$250	\$1 - \$5,000*	Unlimited			Placement of Purc Orders - to \$25K *In Kaufmann's absence - Unlimit
492	<u>PUERTO RICO</u> Phil Wood R. Inesta			Unlimited Unlimited			



**DIGITAL EQUIPMENT CORPORATION  
AUTHORIZED APPROVAL AUTHORITY  
GROUP OPERATION**

**Unlimited - President  
- Vice President (Nick Mazzaresse)**

CC#		Petty Cash	Purchase Requisitions	Inventory Requisitions	S.B.A. Authority	Check-signing Authority	Special Authority - (limit)
153	<u>TRADE SHOWS</u> R. Gould - <u>Supervisor</u>		\$1 - \$5,000.				
252	<u>ART</u> G. D'Annunzio - <u>Supervisor</u>	Travel - to \$250.	\$1 - \$5,000.				
262	<u>SMALL COMPUTER MKTG.-PDP 8</u> George Rice - <u>Supervisor</u> Ron Wilson	Travel - to \$250. Travel - to \$250.	\$1 - \$5,000. \$1 - \$5,000.				
287	<u>ADV. &amp; SALES PROMOTION</u> G. D'Annunzio - <u>Supervisor</u>	Travel - to \$250.	\$1 - \$5,000.				
290	<u>PDP - 11 MARKETING</u> John Cohen - <u>Supervisor</u>	Travel - to \$250.	\$1 - \$5,000.				
292	<u>DATA ACQUISITION &amp; CONTROL</u> Ron Noonan - <u>Supervisor</u>	Travel - to \$250.	\$1 - \$5,000.				
362	<u>A/D DEVELOPMENT</u> Clark Crocker - <u>Supervisor</u>	Travel - to \$250.	\$1 - \$5,000.	Unlimited			
375	<u>DISPLAY ENGINEERING</u> Bob Collings - <u>Supervisor</u> Pat Greene	Travel - to \$250. Travel - to \$250.	\$1 - \$5,000. \$1 - \$5,000.				



CC#		Petty Cash	Purchase Requisitions	Inventory Requisitions	S.B.A. Authority	Check-sing Authority	Special Authority - (Limit)
381	<u>PDP - 8 ENGINEERING</u> R. Cady - <u>Supervisor</u>	Travel - to \$250.	\$1 - \$5,000.				
466	<u>COMPUTER SPECIAL SYSTEMS</u> Bill Long Brad Vachon - <u>Supervisor</u>	Travel - to \$250. Travel - to \$250.	\$1 - \$5,000. \$1 - \$5,000.	Unlimited Unlimited			
470	<u>ANALOG SYSTEMS</u> C. Crocker - <u>Supervisor</u>	Travel - to \$250.	\$1 - \$5,000.	Unlimited			



DIGITAL EQUIPMENT CORPORATION  
AUTHORIZED APPROVAL AUTHORITY  
GROUP OPERATION

Unlimited - President  
- Vice President (S. Olsen)

CC#		Petty Cash	Purchase Requisitions	Inventory Requisitions	S.B.A. Authority	Check-signing Authority	Special Authority - (limit)
256	<u>MODULE ADMINISTRATION</u> Frank Kalwell - <u>Supervisor</u> Jean Haynes	Travel - to \$250.	\$1 - \$5,000.		YES YES		
257	<u>TRAFFIC</u> Frank Kalwell - <u>Supervisor</u> Ray Michel				YES		
265	<u>MODULE MARKETING</u> W. McNamara - <u>Supervisor</u> Al Devault	Travel - to \$250.	\$1 - \$5,000.				
276	<u>COMPUTER MKTG. - PDP - 9</u> R. McInnis - <u>Supervisor</u> John Jones	Travel - to \$250.	\$1 - \$5,000.				
288	<u>TRADITIONAL PRODUCTS</u> Robert Lane - <u>Supervisor</u>	Travel - to \$250.	\$1 - \$5,000.				
324	<u>MODEL SHOP</u> George Gerelds - <u>Supervisor</u>		\$1 - \$5,000.				
357	<u>MODULE ENGINEERING</u> A. Devault - <u>Supervisor</u>						



CC#		Petty Cash	Purchase Requisitions	Inventory Requisitions	S. B. A. Authority	Check - signing Authority	Special Authority - (limit)
377	<u>PDP - 9 ENGINEERING</u> <u>J. Jones - Supervisor</u> Gerry Butler Don Vonada		\$1 - \$5,000. \$1 - \$5,000.				
471	<u>TRADITIONAL PRODUCTS</u> <u>Robert Reed - Supervisor</u>		\$1 - \$ 250.				None(CC#471 onl;
641	<u>OFFICE SERVICES</u> <u>N. LoRusso - Supervisor</u>	Travel - to \$250.	\$1 - \$5,000.				For #550 Print Sho to \$2,500
644	<u>GENERAL ADMINISTRATION</u> Dick Best Win Hindle Ted Johnson Pete Kaufmann	Travel - Unlimited Travel - Unlimited Travel - Unlimited Travel - Unlimited	\$1 - \$5,000. Unlimited Unlimited Unlimited	Unlimited Unlimited Unlimited Unlimited	YES	Purchase orders (Must be counter- signed by Legal Council) to \$250 K	
648	<u>BLDG. MAINTENANCE &amp; SERVICE</u> <u>A. Hanson - Supervisor</u> Nick Mazzaresse Ken Olsen Stan Olsen	Travel - Unlimited Travel - Unlimited Travel - Unlimited	Unlimited Unlimited Unlimited	Unlimited Unlimited Unlimited	YES	Purchase orders (Must be counter- signed by Legal Council) to \$1 M	



DIGITAL EQUIPMENT CORPORATION  
AUTHORIZED APPROVAL AUTHORITY  
GROUP OPERATION

Unlimited - President  
- Vice President (Win Hindle)

CC#		Petty Cash	Purchase Requisitions	Inventory Requisitions	S.B.A. Authority	Check-signing Authority	Special Authority - (limit)
255	<u>BIOMEDICAL MARKETING</u> Mort Ruderman - <u>Supervisor</u>	Travel - to \$250.	\$1 - \$5,000.				
258	<u>PDP - 10 MARKETING</u> Dave Cotton - <u>Supervisor</u>	Travel - to \$250.	\$1 - \$ 250.				
289	<u>LINC MARKETING</u> R. Clayton - <u>Supervisor</u>	Travel - to \$250.	\$1 - \$5,000.				
291	<u>PHYSICS MKTG. APPLICATION</u> Ken Larsen - <u>Supervisor</u>		\$1 - \$5,000.				
359	<u>PDP 10 ENGINEERING</u> R. Savell - <u>Supervisor</u> F. Wilhelm D. Ives	Travel - to \$250. Travel - to \$250. Travel - to \$250.	\$1 - \$5,000. \$1 - \$5,000. \$1 - \$5,000.				
360	<u>PROGRAMMING</u> Bonnie Korsman Larry Portner - <u>Supervisor</u> W. Segal	Travel - to \$250. Travel - to \$250. Travel - to \$250.	\$1 - \$ 250. \$1 - \$5,000. \$1 - \$ 100.				
365	<u>PROGRAM LIBRARY</u> L. Portner - <u>Supervisor</u>						



CC#		Petty Cash	Purchase Requisitions	Inventory Requisitions	S.B.A. Authority	Check-Signing Authority	Special Authority - (Limit)
369	<u>DECUS</u> Angela Cossette L. Partner - <u>Supervisor</u>	Travel - to \$250. Travel - to \$250.	\$1 - \$ 250. \$1 - \$5,000.				
380	<u>LINC 8 ENGINEERING</u> R. Clayton - <u>Supervisor</u>	Travel - to \$250.	\$1 - \$5,000.				
643	<u>TRAINING</u> J. Davis R. Lassen - <u>Supervisor</u>		\$1 - \$ 250.*				
646	<u>PERSONNEL</u> Paul Chambers R. Lassen - <u>Supervisor</u> Grayden Thayer	Travel - to \$250. Travel - to \$250. Travel - to \$250.	\$1 - \$ 250. \$1 - \$5,000. \$1 - \$ 250.				
647	<u>ACCOUNTING</u> R. Dill - Supervisor E. Simeone	Travel - to \$250. Travel - to \$250.	\$1 - \$5,000. \$1 - \$5,000.				
649	<u>SYSTEMS &amp; PROCEDURES</u> Dave Packer - <u>Supervisor</u> Dan Gill	Travel - to \$250.	\$1 - \$5,000.		YES		

\*In absence of Pete  
Kaufmann - (Unlimi



DIGITAL EQUIPMENT CORPORATION  
AUTHORIZED APPROVAL AUTHORITIES  
GENERAL SALES

Unlimited - President  
- Vice President (T. Johnson)

CC#		Petty Cash	Purchase Requisitions	Inventory Requisitions	S.B.A. Authority	Check-Signing Authority	Special Authority - (Limit)
101	<u>NATIONAL SALES</u> William Farnham *#1 Dave Rogers Ron Smart Ted Johnson - <u>Supervisor</u>	Travel - to \$250. Travel - to \$250. Travel - to \$250.	\$1 - \$5,000. \$1 - \$5,000. \$1 - \$5,000.				1. Credit Cards & Applications. 2. Car Equipment for CCID to \$1000 max if included in Capital Budget. 3. Monthly Auto all lines billings. 5. Int Company billing.
115	<u>INTERNATIONAL SALES</u> Brad Towle Ted Johnson - <u>Supervisor</u>				YES		
152	<u>DIRECT SALES</u> W. Farnham - <u>Supervisor</u> Gertrude Loynd				YES		
153	<u>TRADE SHOWS</u> Roy Gould, <u>Supervisor</u>		\$1 - \$5,000.				
178	<u>COMPUTER ADMIN.</u> T. Graff - <u>Supervisor</u> Don Berman				YES		
549	<u>PHOTOGRAPHY</u> John Bellantoni - <u>Supervisor</u>						



CC#		Petty Cash	Purchase Requisitions	Inventory Requisitions	S.B.A. Authority	Check-Signing Authority	Special Authority - (limit)
550	<u>PRINTING</u> N. Lo Russo - <u>Supervisor</u>	Travel - to \$250.	\$1 - \$5,000.				For CC# 641 & #550 to \$2500.
551	<u>TECHNICAL WRITING</u> John Bellantoni - <u>Supervisor</u>	Travel - to \$250.	\$1 - \$5,000.				T. Johnson
742	<u>FIELD SERVICE</u> J. Shields - <u>Supervisor</u> Lee Fryer John Keady	Travel - to \$250. Travel - to \$250.	\$1 - \$5,000. \$1 - \$5,000.		YES		1. Credit Cards & A Applications: 2. Ca Equip. (CC#700) to \$1000 max. (if incl in Capital Budget)



**digital**

INTEROFFICE MEMORANDUM

DATE:

October 10, 1969

SUBJECT:

CORPORATE CONTRIBUTIONS COMMITTEE

TO:

Ken Olsen

FROM:

Pete Kaufmann

I thought we had a Corporate Contributions Committee that took care of all those contributions which were outside of those that the Product Lines give. As I remember it, Harry, Win and some people from Personnel were on this committee. I agree that it may be reasonable to expand this committee to think about this problem and to make recommendations. Think that the Product Lines should be responsible for all equipment contributions that are related to Sales and that this committee should not get involved in that whatsoever. However, there are contributions which I would like to make in Westfield, Puerto Rico, etc. and possibly Roxbury which this Contributions Committee should consider. Rather then set up a brand new committee or have me as chairman, why don't we ask Brewster Kopp to chair it like Harry used to and broaden the representation.

Another approach is to have Ted budget contributions that he gives in the towns that he has sales offices, likewise for me, and to then set up our own committees to make recommendations to the Operations Committee for these contributions.

Why don't we discuss this at the Operations Committee.

*PK*

Pete

jb

Attachment: Mark Nigberg's Memo to Ken Olsen



*What do you think*

**digital**

# INTEROFFICE MEMORANDUM

DATE: October 2, 1969

SUBJECT: CORPORATE CONTRIBUTIONS

TO: Ken Olsen

FROM: Mark Nigberg

We recommend that a special contributions committee be created to:

- help formulate policy concerning corporate contributions and community activities,
- make recommendations concerning the budgeting of funds for corporate contributions,
- evaluate requests for cash contributions and make recommendations directly to the Operations Committee,
- evaluate requests for equipment contributions (other than those which are sales related) and make recommendations directly to the Operations Committee.

I feel this system is warranted because:

- a. There has been no formal mechanism for processing and evaluating requests for equipment contributions (other than those which are sales related).
- b. There is a need for a group (which represents management and different parts of the organization) to help formulate and define policy concerning corporate contributions and community activities.
- c. We are receiving an increasing number of requests for cash and equipment contributions.
- d. With the addition of Westfield and Leominster, Digital's community now extends well beyond Maynard.

I recommend the committee include the following:

Pete Kaufmann or representative (Chairman)  
Win Hindle or representative  
Representative of Finance  
Representative of Personnel (Bob Lassen)  
Maynard Resident (Fred Gould)  
Representative of Public Relations (Mark Nigberg)  
Secretary/Coordinator (Dimitri Dimancesco)

Can you give me an answer on this or would you prefer that I submit a proposal to the Operations Committee?

/rdb



# Peripheral Presentation by Joe St Amour

## 1. MUST DO

Finish RS-08/RS-09 (incl. solve disk/head interface <sup>and understand</sup> contamination problem)

Support PCO

Finish TU-56

Finish TU-10

## 2. HIGH PRIORITY (Based on people capability/need)

Do DF-32/RS-11 <sup>have prelim</sup> (need proposal) { Plan NG - PDP-11 man learning  
company - PDP-8 deciding to go alone

Do TU-80 <sup>prelim</sup> (have proposal)

Second Source - Disk Surfaces (need preliminary plan)  
(or plan for internal facility)

## 3. SELECT NEXT PROJECTS

Line Printer (How much?)

Low Cost Printer { Phillips lead or C.T. < \$1000 } (need proposal)

Develop Hammer? depends on above

RS-10? (need proposal)

Other Disk? Proposal - Arnold/Grant  
Can we do -  
Arnold with John + new hire?

Power Supplies

2<sup>nd</sup> source punch - PCO - Must include <sup>some</sup> new electronics

## 4. LOWER PRIORITY

Burroughs 9370 (disassemble) (for analysis of design concepts)

In-house Head Program (~1500 worth of heads in RS08)

1600 <sup>bpi/inch</sup> bpi Transport

Cheap DECTape (or equivalent)

Mark Sense Card Reader



**digital**

INTEROFFICE MEMORANDUM

DATE: October 20, 1969

SUBJECT: Reporting financial data outside DEC

TO: Operations Committee

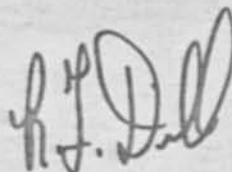
FROM: R. F. Dill

At the request of several members of the Operations Committee, I have studied the possibility of reporting subsidiary figures on a current basis with the parent corporation.

It is possible to report all operations on a current basis; therefore, it is proposed to report all quarterly and annual information on the same basis as our management statements currently are. (i.e. no two month lag).

The first quarter was released on this basis anticipating your approval.

egs







## INTEROFFICE MEMORANDUM

DATE: October 22, 1969

SUBJECT: E.D.P. PCP

TO: Operations Committee

FROM: Ed Savage

The E.D.P. operations has been divided into two separate cost centers.

1. Computer Operations
2. Systems Departments

The increases being requested by both groups can be capsulized as follows:

	<u>Q 2</u>	<u>Q 3</u>	<u>Q 4</u>	<u>Total</u>
Computer Operations	16.9	35.1	41.4	93.4
Systems Departments	39.3	43.0	51.2	133.5
Total	56.2	78.1	92.6	226.9

The justification for these increases are contained in the attached memorandums.

In my opinion these changes are required in order that the E.D.P. operation be in a position to cope with the demands being placed upon it. It is essential that you approve these changes in order to avoid users going off on seeking alternative sources of developing information which would create duplication and would prove to be rather costly over a period of time.

This change has been reflected in the recast budget which I have submitted to you.

ELS/ba  
Attachments





## INTEROFFICE MEMORANDUM

DATE: September 26, 1969

SUBJECT: Systems Department Program Change Proposal

TO: Operations Committee

FROM: David W. Racker

Summary:

This proposal recommends significant expansion of corporate systems activities in Fiscal 1970.

The objectives of such expansion would be:

1. To decrease the current 9 month backlog of systems projects to 3 months by July 1970. The current plan would lead to only a 6 month backlog at this time, assuming no growth in project requirements.
2. To expand activities in the general systems and procedures area, encompassing paperwork simplification, filing systems, and clerical cost control programs. A detailed proposal for this kind of activity is attached.
3. To establish a comprehensive set of time shared computer services for management.

The return on investment from systems projects appears to be extremely high. Both computer based and manual systems projects that are aimed primarily at cost savings have yielded returns on the order of 100% (pay off periods less than 1 year). Projects currently in backlog have equally significant profit improving potential, either through pure cost savings or improved information for management control. Cost savings projects account for about 35% of the workload.

Thus my proposal is to raise the level of systems activities so as to be able to exploit current opportunities for increased profits and to establish a capability level to effectively deal with an increasing flow of new opportunities.

Costs and Staffing:

The table below shows the current and proposed Fiscal 1970 budget. It also shows the annual rate of expenditure as of the end of Fiscal 1970 based on both current and proposed levels of activity. This is a good measure of the proposed increase in activity level.

	FY 1970 (Total)	Annual Expenditure Rate as of Fourth Quarter, 1970
	(thousands of \$)	
Current Budget	229.1	244.0
Proposed Budget	322.5	409.2
Budget Increase	93.4	165.2
% Increase	41.0%	67.5%



The proposed budget increase reflects building the systems staff to a total of 27 people by July 1970. This is an increase of 9 people over current plans, which call for a staff of 18 people at that time. Total staff in July, 1969 was 14 people.

### Workload Analysis:

To evaluate the EDP Systems workload, I have analyzed projects in backlog and continuing efforts required to explore new areas and maintain existing systems. A breakdown of the workload appears below:

<u>Area</u>	<u>Man-weeks of Projects</u>	<u>Continuing Effort (Men)</u>
Finance/Personnel	47	1.75
Marketing (Order Entry, Bookings, Backlog, Invoicing, Receivables)	44	3.00
Field Service	24	.50
Manufacturing (Material Control, Cost Control, Production Planning)	76	1.50
	191	6.75

### Systems Growth Relative to the Total DEC Growth:

Since its start in 1966, the systems staff has grown at an almost identical rate to the company as a whole. The table below shows total systems staff relative to total DEC employment over the past three years.

	<u>Systems Staff</u>	<u>Total Employees</u>	<u>Systems Staff: Employees</u>
July 1967	6	1800	1 : 300
July 1968	10	2900	1 : 290
July 1969	14	4500	1 : 320
July 1970 (original)	18	6400 (est)	1 : 360
July 1970 (proposed)	27	6400 (est)	1 : 240

Two things are apparent. First, the existing budget fails to maintain systems capability consistent with personnel growth. Second, the proposed budget increases systems capability to a higher level than in the past. I believe such capability is necessary and desirable because:

1. The company's information requirements appear to be increasing at a faster rate than the overall growth rate, as the organization and information needs become more complex. This is evidenced by the increasing systems project backlog.
2. Maintenance activity absorbs an increasing amount of systems effort. In 1967 six people were actively working on new systems. Now, with many systems in operation, at least 30% of the staff must devote time to routine revisions and modifications to existing systems -- and are not available for new development work.



**DIGITAL EQUIPMENT CORPORATION**  
**BUDGET WORKSHEET FOR COST CENTER NO. 649**

**PROPOSED**

Prepared by D. Pachey

Approved by \_\_\_\_\_

Date 9/23/69

Account Number	Activity Code	R.S.	Account Name	Fiscal Year 70		Fiscal Year 70	
				First Quarter	Second Quarter	Third Quarter	Fourth Quarter
7781		1	Project Material Direct				
7788		1	Mfg. Transfer - Direct				
7789		1	Material Requisitioned Dir.				
7784		1	Project Labor Direct				
7701		2	Base Labor (A)				
7701		2					
7701		2					
7702		3	Overhead Labor (B)		57.1	71.9	80.8
7711			Holiday and Vacation (Budgeted for in A & B above)				
7753		3	Agency Personnel				
7703		4	Overtime Premium				
7704		4	Personal Allowance				
7705		4	Sick Pay				
7715		4	Fringe Benefits (10% A & B)		5.7	7.2	8.1
7725		5	Occupancy Charge (27¢ Sq. Ft./Mo.)		2.6	2.9	2.9
7726		6	Stationery Misc.		2.5	3.0	3.0
7728		6	Production Materials				
7729		6	Materials Requisitioned				
7740		7	Airlines				
7741		7	Auto Rentals				
7742		7	Lodging		2.0	2.2	2.5
7727		8	Equipment Leased				
7731		8	Repairs & Maintenance				
7733		8	Depreciation				
7752		8	Dues & Subscriptions		.1	.1	.1
7758		8	Tel & Tel		2.2	2.5	2.9
7759		8	Tuition Assistance		2.0	2.0	2.0
Total					74.2	91.8	102.3
Cost							
Center							





# INTEROFFICE MEMORANDUM

DATE: September 23, 1969

SUBJECT: General Systems and Procedures Group

TO: Operations Committee

FROM: <sup>Wcz</sup> Warren C. Lackstrom

## Summary:

This is a proposal to develop a general systems and procedures group at DEC. Such a group would provide expertise in all aspects of non EDP systems, such as establishing clerical cost control, work simplification, filing systems, and forms design.

Our objective should be to build a group of three analysts during Fiscal 1970. The annual cost of this group will be about \$50,000.00. It should be able to undertake projects that would yield cost savings of at least \$100,000 annually, implying a return on investment well in excess of 200% per year.

## Mission of the General Systems and Procedures Group:

The general systems and procedures group will be primarily concerned with department operations and management controls. The types of projects which would be undertaken fall into three broad categories:

### 1. Department Studies:

These projects would be confined to a specific department(s) with emphasis placed on organization structure, manual paper flows, accounting and work controls, supervisory effectiveness and management controls reporting. The initial undertakings in this area would be clerical cost control projects.

### 2. Assistance to EDP Systems Staff:

Support will be provided to the EDP Systems staff whenever possible. Examples of this supporting role include the development and implementation of manual data collection systems for computer based systems, assist in the design of necessary input forms (carbon sets, etc.) and assist in defining required management reports.

### 3. Systems Surveys:

The general systems group will assist in making initial systems surveys of departments or operational areas to identify and quantify problem areas, and determine what combination of techniques and resources are required to solve the problems.

## Clerical Cost Control Projects:

Clerical Cost Control projects emphasize work simplification, work measurement (including the setting of standards), work scheduling, management control reporting, and organizational structure. Standards will be developed primarily for use in budgeting and controlling office expenses.



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## General Systems and Procedures Group:

There are currently 309 positions where clerical cost control techniques would be applicable. Exhibit A provides a breakdown of these clerical positions by cost center. Based on the recommended staffing level of three analysts devoting 75% of their time to such projects at least 100 clerical positions can be reviewed annually. On this basis, one analyst devoting full time to these projects could review 44 clerical positions annually. Experience from the pilot project in Computer Administration, Module Administration, and Accounts Receivable indicates that an experienced analyst can review approximately 50 clerical positions per year.

Cost Savings:

Assuming that average clerical savings of 15% can be achieved from clerical cost control projects, and that savings are realized only in the year in which the position was reviewed, the annual net savings from these projects are calculated as follows:

Number of positions reviewed annually	100
Estimated savings at 15%	15
Annual cost per clerical position (wages plus fringe benefits plus other overhead)	\$ 7,500.00
Annual gross savings	\$112,500.00
Annual Cost (3 analysts @ \$16,800 per year)	\$ 50,400.00
Annual Net Savings	<u>\$ 62,100.00</u>

Based on the results of the pilot project clerical savings of 15% are attainable at DEC.

Other Benefits:

In addition to cost savings, other substantial benefits can be obtained from clerical cost control projects. These include:

- . Increased control over clerical activities.
- . Simplified procedures.
- . Better training and utilization of personnel.
- . Increased supervisory effectiveness.
- . Provide data for departmental planning, budgeting and determining staffing requirements.
- . Improved communications between clerical employees and department managers.
- . Improved employee morale.

Other Projects:

In addition to CCC projects the general systems and procedures group will undertake projects where their technical competence can be utilized. Examples of this type of project include:

- . Review and document the interface between Computer Administration and Production Control. Develop recommendations for improvements.
- . Review and document the shipping cycle for computers and options. Develop recommendations for improvements.



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General Systems and Procedures Group

- . Prepare branch office procedures for the processing of computer orders.
- . Assist EDP systems group in developing an on-line order entry system.
- . Maintain systems currently in use.

Use of Consultants:

Based on the recently completed pilot project, one full time consultant costs approximately \$60,000.00 - \$70,000.00 per year. This same expenditure will support at least 4 in-house analysts at \$16,800 per year, per analyst. Based on these figures, DEC should concentrate on developing its own in-house capability for doing clerical cost control projects.

WCL:eab

Attachment



## EXHIBIT A

Departments Where Clerical Cost Control Projects Would Be Applicable

<u>Cost Center</u>	<u>Department</u>	<u>Number of Clerical Positions</u>
101	National Sales	12
152	Direct Mail	10
178	Computer Administration	22
256	Module Administration	19
287	Advertising and Sales Promotion	11
296	Mail Room	6
352	Drafting	27
360	Programming	8
365	Program Library	25
490	Purchasing	16
494	Materials Control	39
551	Technical Writing	7
646	Personnel	23
647	Accounting	66
649	Data Processing (Key punch)	18
		<hr/>
		309



# PROPOSED STAFFING

## DIGITAL EQUIPMENT CORPORATION MANPOWER BUDGET

4.4K/mon, etc.

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4.

Cost Center No. 649

Date Budget Prepared 9-69

Department SYSTEMS

Fiscal Year 1970

Prepared By DP

Type	Job Description	Personnel Code	Anticipated Staff @ 9-30-69		Quarter 1		Quarter 2		Quarter 3		Quarter 4		Accounting Use Only	
			People	\$	People	\$	People	\$	People	\$	People	\$	People	\$
Salary	MANAGER		1				1		1		1			
	SYST. SUPV.		2				3		3		3			
	ANALYST/PROG & PROG		11				13		15		19			
	PROC ANAL		1				2		2		3			
	STAFF ANALYST		0				1		1		1			
				43.6			53.1		65.6		74.5			
	Anticipated Salary Increases		15				21	1.0	23	2.0	27	2.0		
	Sub Total			43.6				54.1		67.6		76.5		
Hourly & Weekly	SECRETARIES		2	2.9			2	3.0	3	4.3	3	4.3		
	Anticipated Salary Increases													
	Overtime (Premium)											.2		
	Sub Total							3.0		4.3		4.5		
GRAND TOTALS				46.5			57.1		71.9		80.8			





# INTEROFFICE MEMORANDUM

DATE: October 3, 1969

SUBJECT: Computer Operations Department Program Change Proposal

TO: Operations Committee

FROM: John J. Galvin  
Cost Center 651

## SUMMARY:

The EDP Computer Operations Department constitutes an organization whose general purpose is the collection, processing, dissemination and storage of business information of all kinds and for a limitless range of purposes. Almost every economic effort at DEC depends to some extent upon the information gathered and reported from our files and systems. This information therefore must be timely and accurate.

The department as it now exists has three major weaknesses:

1. Lack of control over input and output.
2. Inability to cope internally with the tremendous increase in volume transactions due to company growth.
3. Insufficiently responsive to the needs of the user.

These weaknesses are directly attributable to understaffing in critical areas:

### A. Control:

Current staffing does not provide adequate control over the amount, character, accuracy or format of the information flowing in to be processed. On the output side, the highly diversified mixture of users and requirements is continually changing and needs constant re-evaluation and discussion. Current staffing does not provide this service.

### B. Data Transcription:

Understaffing in the keypunch section results in delayed reports and frustrated users. Outside keypunch contractors are used to relieve some of the total load but they are expensive and have a tendency to add imbalance to our scheduling routine. Pick up and delivery times are days apart and contribute to "data peaking" problems which in turn create inaccurate reports due to the lack of time for pre-audit work.

A great deal of time and money has been spent in developing and implementing these systems. They have all been approved and justified on their potentials for improving the company profit level. It is clear to me that we must now focus sharply on making these systems work through the operations department by gaining the ability to exercise the necessary controls and arranging quick, responsive retrieval and dissemination to serve our customers.



## PROPOSAL:

The table below shows the current and proposed Fiscal 1970 budget. It also shows the annual rate of expenditure as of the end of Fiscal 1970 based on current and proposed levels of activity.

	FY 1970 (Total) (Thousands of \$)	Annual Expenditure Rate as of Fourth Quarter 1970
Current Budget	464.8	525.6
Proposed Budget	598.3	730.4
Budget Increase	133.5	204.8
% Increase	29.0%	39.0%

## JUSTIFICATION:

This increase stems from a significant underestimate of workloads during Fiscal 1970. This resulted from inadequate analysis of volumes at budget preparation time and from volume growth at almost double the rate used in projections (50% actual vs. 30% projected).

In the data transcription area, for example, expenditures during the first quarter of FY 1970 were over budget by about 70%. Current workload requires about 24 keypunch girls, where only 15 were budgeted for this time.

Thus the budget increase requests additional funds to maintain operations at an increased level of activity. It updates plans to reflect the actual level of activity and the higher growth rate. It includes staff believed necessary to effectively control the work flow to improve and maintain the service level.

The chart below summarizes the areas where increased funds are required. Virtually all increases are in personnel. All figures are as of the 4th Quarter, FY 1970.

	People		(Thousands of \$)		(Annual Rate)
	Current	Proposed	Current	Proposed	Increase
Data Transcription	18	33	132.5	266.0	133.5
Computer Operations	8	11	82.0	141.6	59.6
Data Control & Other	2	5	4.5	16.2	11.7
			Total		204.8

## VOLUME INCREASES:

In the five major categories of source documents being processed by the Operations Department the following increases in volumes were recorded for the period between July 1968 and July 1969:

	Annual % Increases
Vouchers	70
Sales	60
Material	74
Labor	22
Bookings	59



DIGITAL EQUIPMENT CORPORATION  
BUDGET WORKSHEET FOR COST CENTER NO. 651 EDP Operations

Prepared by J. Galvin

Approved by \_\_\_\_\_

Date 10/10/69

Account Number	Activity Code	R.S.	Account Name	Fiscal Year		Fiscal Year	
				First Quarter	Second Quarter	Third Quarter	Fourth Quarter
7781		1	Project Material Direct				
7788		1	Mfg. Transfer - Direct				
7789		1	Material Requisitioned Dir.				
7784		1	Project Labor Direct				
7701		2	Base Labor (A)				
7701		2					
7701		2					
7702		3	Overhead Labor (B)		66.8	74.8	88.3
7711			Holiday and Vacation (Budgeted for in A & B above)				
7753		3	Agency Personnel		5.0	4.0	2.0
7703		4	Overtime Premium		1.3	1.3	1.3
7704		4	Personal Allowance				
7705		4	Sick Pay				
7715		4	Fringe Benefits (10% A & B)		6.7	7.5	8.8
7725		5	Occupancy Charge (27¢ Sq. Ft./Mo.)		2.2	2.6	2.8
7726		6	Stationery Misc.		14.0	16.5	19.0
7728		6	Production Materials		2.0	2.0	2.0
7729		6	Materials Requisitioned				
7740		7	Airlines			.2	.2
7741		7	Auto Rentals				
7742		7	Lodging			.3	.3
7727		8	Equipment Leased		45.6	51.3	55.0
7731		8	Repairs & Maintenance		1.0	1.1	1.2
7733		8	Depreciation		.3	.4	.4
7752		8	Dues & Subscriptions			.1	.1
7758		8	Tel & Tel		.8	.9	1.0
7759		8	Tuition Assistance		.2	.2	.2
Total				106.0	145.9	163.2	182.6
Cost							
Center							



9/10/69

ORIGINAL

DIGITAL EQUIPMENT CORPORATION  
BUDGET WORKSHEET FOR COST CENTER NO. 651 EDP OPERATIONS

Prepared by Original  
D. Pachter

Approved by \_\_\_\_\_

Date \_\_\_\_\_

Account Number	Activity Code	R.S.	Account Name	Fiscal Year 1970		Fiscal Year 1970	
				First Quarter	Second Quarter	Third Quarter	Fourth Quarter
7781		1	Project Material Direct				
7788		1	Mfg. Transfer - Direct				
7789		1	Material Requisitioned Dir.				
7784		1	Project Labor Direct				
7701		2	Base Labor (A)				
7701		2					
7701		2					
7702		3	Overhead Labor (B)		33.4	37.5	45.4
7711			Holiday and Vacation (Budgeted for in A & B above)				
7753		3	Agency Personnel		3.0	3.5	3.8
7703		4	Overtime Premium		1.5	1.5	1.5
7704		4	Personal Allowance				
7705		4	Sick Pay				
7715		4	Fringe Benefits (10% A & B)		3.8	3.8	4.5
7725		5	Occupancy Charge (27¢ Sq. Ft./Mo.)		2.2	2.6	2.8
7726		6	Stationery Misc.		13.5	15.5	17.4
7728		6	Production Materials		2.0	2.0	2.0
7729		6	Materials Requisitioned				
7740		7	Airlines				
7741		7	Auto Rentals				
7742		7	Lodging				
7727		8	Equipment Leased		45.6	51.3	51.3
7731		8	Repairs & Maintenance		.9	1.1	1.2
7733		8	Depreciation		.3	.4	.4
7752		8	Dues & Subscriptions				
7758		8	Tel & Tel		.8	.9	1.0
7759		8	Tuition Assistance		.1	.1	.1
Total				106.6	106.6	120.2	131.4
Cost					21		
Center					126.6		

DEC 1-1016

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# DIGITAL EQUIPMENT CORPORATION MANPOWER BUDGET

Cost Center No. 651  
Department EDP OPERATIONS

Date Budget Prepared 6/1/71  
Fiscal Year 1970  
Prepared By John G. L.

Job 20-03- Dec 30, 1970

Type	Job Description	Personnel Code	Anticipated Staff @ 6-30-69		Quarter 1		Quarter 2		Quarter 3		Quarter 4		Accounting Use Only	
			People	\$	People	\$	People	\$	People	\$	People	\$	People	\$
	MANAGER - OPERATIONS		1	1.9	1	3.5	1	3.5	1	3.5	1	3.5		
	SUPERVISOR - OPERATIONS		1	2.6	2	5.4	2	5.4	2	5.4	2	5.4		
	SUPERVISOR - REPAIRS								1	2.6				
Salary	SUPERVISOR - Clinical Group				1	2.8	1	2.8	1	2.8	1	2.8		
	Anticipated Salary Increases													
	Sub Total			4.5		11.7		11.7		11.7		14.3		
	ANALYST - OPERATIONS		1	1.6	1	1.6	1	1.6	1	1.6	1	1.6		
	KEYPUNCH OPERATIONS A		17	22.0	24	31.2	28	36.4	31	40.3	31	40.3		
Hourly & Weekly	COMPUTER - OPERATIONS		1	2.0	1	2.3	0		0		0			
	COMP. OPER. A		2	3.9	4	8.8	4	8.8	4	8.8	4	8.8		
	COMP. OPER. B		2	7.8	3	5.8	4	7.8	4	7.8	4	7.8		
	COMP. OPER. C								1	1.6	1	1.6		
	ACCTG. CLERK				1	1.5	2	3.0	2	3.0	2	3.0		
	SECRETARY		1	1.3	1	1.5	1	1.5	1	1.5	1	1.5		
						64.4		72.6		71.9		71.9		
	Anticipated Salary Increases													
	Overtime (Premium)			2.1		2.1		2.1		2.1		2.1		
	Sub Total			45.5	39	66.8		74.8	45	74.8	49	78.3		
GRAND TOTALS														





# INTEROFFICE MEMORANDUM

DATE: October 23, 1969

SUBJECT: Revised Corporate Plan

TO: Operations Committee

FROM: Ed Savage

Attached is a revised Corporate plan for 1970 after giving effect to the results of the first quarter and the following PCP's.

1. PDP-12
2. Personnel (2nd Qtr. only)
3. EDP
4. Training
5. Programming Product Line

The PDP-12 PCP is now acceptable and I recommend your approval. Proper negotiations between the various product groups have been completed and the final version being submitted to you is a reasonable plan in view of our overall corporate objectives.

The revised corporate statement includes the recently approved Personnel PCP for the second quarter only. The reason for this is that any further increase in the Personnel budget will be a function of the charge in the overall manpower budget. I am currently working to develop a base agreeable to Personnel from which to base any future budget increases.

The Personnel, E.D.P., and Training PCP's have not resulted in a increase in the G & A budget. What I have done is to cover these increases with funds which were labeled "Contingencies and Interest Expense" in the original budget. I have left adequate funds in this category to cover a financing changes which could possibly occur. Any future changes would result in an increase to the General and Administrative budget.

ELS/ba  
Attachments



DIGITAL EQUIPMENT CORPORATION AND SUBSIDIARIES  
BUDGET STATEMENT OF OPERATIONS

CORPORATE  
DATE 10/23/69

CURRENT PLAN

		Fiscal Quarters 1970				Total Fiscal Year 1970
		ACTUAL First	Second	Third	Fourth	
<b>BOOKINGS</b>		42,404	38,890	36,493	46,835	164,622
1	Equipment Sales of Parent	30,950	36,237	41,823	47,114	156,124
2	Equipment Sales of Subsidiaries					(967)
3	Contributions	(730)	(53)	(78)	(106)	(206)
4	Allowances	(21)	(62)	(61)	(62)	(13,207)
5	Discounts	(2,741)	(3,197)	(3,488)	(3,781)	
6	<b>INCOME FROM SALES OF EQUIP</b>	27,458	32,925	38,196	43,165	141,744
7	Rental Income	134	228	244	348	954
8	Maintenance & Service Income	1,341	1,621	1,836	2,037	6,835
9	<b>NET OPERATING REVENUE</b>	28,933	34,774	40,276	45,550	149,533
10	Domestic Job and Standard Costs	13,295	14,900	16,594	17,871	62,660
11	Subsidiary Job and Standard Costs					(126)
12	Manufacturing Overhead Variances	(126)				(920)
13	Variances From Standard	(920)				(7)
14	Allowances	(7)				
15	Warranty & Installation Expense	1,388	1,782	1,970	2,089	7,229
16	Royalty Expense	99	137	152	168	556
17	<b>COST OF SALES - EQUIPMENT</b>	13,729	16,819	18,716	20,128	69,392
18	Depreciation of Leased Equipment	15	28	32	34	109
19	Maintenance & Service Expense	1,114	1,191	1,352	1,485	5,142
20	<b>COST OF NET OPERATING REVENUE</b>	14,858	18,038	20,100	21,647	74,643
21	Margin on Equipment Sales (6-17)	13,729	16,106	19,480	23,037	72,352
22	Margin on Rentals (7-18)	119	200	212	314	845
23	Margin on Maintenance & Service	227	430	484	552	1,693
30	<b>TOTAL GROSS MARGIN (21 + 22 + 23)</b>	14,075	16,736	20,176	23,903	74,890
40	Product Line Engineering	2,109	2,577	2,640	2,590	9,916
41*	Shared Product Engineering	422	695	797	899	2,813
42*	Manufacturing Projects	104	149	174	195	622
43	Cross Product Engineering	29	51	62	60	202
49	<b>TOTAL ENGINEERING EXPENSE</b>	2,664	3,472	3,673	3,744	13,553
50	Product Line Marketing	710	898	942	1,030	3,580
51	Domestic & Foreign Selling	2,052	2,226	2,378	2,543	9,199
52	Advertising & Promotion	404	517	487	510	1,918
53	Cross Product Marketing	138	167	175	189	669
59	<b>TOTAL SELLING EXPENSE</b>	3,304	3,808	3,982	4,272	15,366
61*	<b>ADMINISTRATIVE EXPENSE</b>	1,422	1,798	1,898	2,004	7,122
62*	<b>OTHER (INCOME) &amp; EXPENSE</b>	152	19	74	177	422
70	<b>PROFIT BEFORE FEDERAL TAXES**</b>	6,533	7,639	10,549	13,706	38,427
**Before Federal & State Tax		22.6%	22.0%	26.2%	30.1%	25.7%



## BUDGET STATEMENT OF OPERATIONS

DATE

CORPORATE  
8/08/69

Original Budget Recast

	Fiscal Quarters 1970				Total Fiscal Year 1970
	First	Second	Third	Fourth	
<b>BOOKINGS</b>	24,300	38,248	35,685	46,085	144,318
1 Equipment Sales of Parent	28,500	35,528	39,672	44,754	148,454
2 Equipment Sales of Subsidiaries					
3 Contributions	(46)	(53)	(78)	(106)	(283)
4 Allowances	(62)	(62)	(61)	(62)	(247)
5 Discounts	(2,498)	(3,091)	(3,282)	(3,557)	(12,428)
6 INCOME FROM SALES OF EQUIP	25,894	32,322	36,251	41,029	135,496
7 Rental Income	202	228	244	348	1,022
8 Maintenance & Service Income	1,442	1,618	1,826	2,039	6,925
9 NET OPERATING REVENUE	27,538	34,168	38,321	43,416	143,443
10 Domestic Job and Standard Cost	11,913	14,586	15,698	17,004	59,201
11 Subsidiary Job and Standard Cos					
12 Manufacturing Overhead Varianc					
13 Variances From Standard					
14 Allowances					
15 Warranty & Installation Expense	1,365	1,711	1,852	1,980	6,908
16 Royalty Expense	105	134	144	158	541
17 COST OF SALES - EQUIPMENT	13,383	16,431	17,694	19,142	66,650
18 Depreciation of Leased Equipmer	26	28	32	34	120
19 Maintenance & Service Expense	1,064	1,189	1,344	1,487	5,084
20 COST OF NET OPERATING REVENUE	14,473	17,648	19,070	20,663	71,854
21 Margin on Equipment Sales (6-1)	12,561	15,951	18,617	22,032	69,161
22 Margin on Rentals (7-18)	126	140	152	169	587
23 Margin on Maintenance & Servic	378	429	482	552	1,841
30 TOTAL GROSS MARGIN (21 + 22 +	13,065	16,520	19,251	22,753	71,589
40 Product Line Engineering	2,403	2,528	2,542	2,477	9,950
41* Shared Product Engineering	551	680	759	855	2,845
42* Manufacturing Projects	118	143	162	183	606
49 Cross Product Engineering	50	51	45	48	194
43 TOTAL ENGINEERING EXPENSE	3,122	3,402	3,508		
50 Product Line Marketing	748	876	910		
51 Domestic & Foreign Selling	2,039	2,178	2,306		
52 Advertising & Promotion	339	507	475		
53 Cross Product Marketing	139	181	183		
59 TOTAL SELLING EXPENSE	3,265	3,742	3,874		
61* ADMINISTRATIVE EXPENSE	1,457	1,798	1,898		
62* OTHER (INCOME) & EXPENSE	25	19	74	6	124
70 PROFIT BEFORE FEDERAL TAXES **	5,196	7,559	9,897	13,020	35,672

18.0%

22.1%

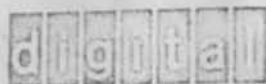
25.0%

20.0%

24.0%



CONFIDENTIAL



INTEROFFICE MEMORANDUM

DATE: October 20, 1969

SUBJECT: PDP-12 PCP

TO: Ed Savage  
CC: Win Hindle  
Ed Kramer  
Lorrin Gale  
Bruce Ryan

FROM: Richard Clayton *RC*

We are in complete agreement with the resubmission of the PDP-12 PCP to the Operations Committee for October 27th. The present unclear status is causing real confusion in that the PCP is the real operation as of today.

During the two months this proposal has been in the mill, more information has become available. The effect of all new information has been favorable in every significant case. These changes are included in a restatement of the PDP-12 PCP Budget. This represents the most realistic and responsible budget we can present based on the information available at this time.

Compared with the PCP presented August 26, 1969, the following changes are significant.

- I. Actuals for Q1
- II. Profit up Q1 through Q4 by 19K, 14K, 24K, 111K.
- III. Warranty and Installation lower in Q3 & Q4 by a total of 85K. This money is placed in Product Line Engineering to cover possible installation troubles with LABCOM.
- IV. Cross Product Engineering increased in Q3 & Q4 to cover problems caused by the loss of an engineer (30K Total).
- V. Low Mfg. costs in Q2 & Q4 (2%) because of better learning curve (early) and phase in of TU56 in Q4.



- VI. Product Line Engineering increased by an additional 16% (115K) mostly in Q3 and Q4 as the product line shoulders its load for new peripherals and continued application programming.
- VII. Bookings up 600K total and up 1 million (actual) in Q1. (Figures from Ted Graff 10-17-69). Selling cost up only 15K and only in Q4.



DIGITAL EQUIPMENT CORPORATION  
BUDGET STATEMENT OF OPERATIONS

PDP-12  
DATE 10/17/69

	Fiscal Quarters 1970				Total Fiscal Year 1970
	Actual First	Second	Third	Fourth	
# Units Shipped	45	90	125	125	
<b>BOOKINGS</b>	4,000	3,300	3,500	3,700	14,500
1 Equipment Sales of Parent	1,330	3,250	4,800	5,400	14,780
2 Equipment Sales of Subsidiaries					(2)
3 Contributions	(2)				
4 Allowances					
5 Discounts	(66)	(226)	(336)	(379)	(1,007)
6 <b>INCOME FROM SALES OF EQUIP</b>	1,262	3,024	4,464	5,021	13,771
7 Rental Income	1				1
8 Maintenance & Service Income	13	18	35	48	114
9 <b>NET OPERATING REVENUE</b>	1,276	3,042	4,499	5,069	13,886
10 Domestic Job and Standard Cost	666	1,350	1,910	1,990	5,916
11 Subsidiary Job and Standard Cos					(14)
12 Manufacturing Overhead Variance	(14)				(64)
13 Variances From Standard	(64)				
14 Allowances					
15 Warranty & Installation Expense	115	208	287	297	907
16 Royalty Expense	5	13	19	22	59
17 <b>COST OF SALES - EQUIPMENT</b>	708	1,571	2,216	2,309	6,804
18 Depreciation of Leased Equipment					
19 Maintenance & Service Expense	13	12	23	32	80
20 <b>COST OF NET OPERATING REVENUE</b>	721	1,583	2,239	2,341	6,884
21 Margin on Equipment Sales (6-17)	554	1,453	2,248	2,712	6,967
22 Margin on Rentals (7-18)	1				1
23 Margin on Maintenance & Service		6	12	16	34
30 <b>TOTAL GROSS MARGIN (21 + 22 + 23)</b>	555	1,459	2,260	2,728	7,002
40 Product Line Engineering	110	160	210	225	705
41* Shared Product Engineering	31	64	88	101	284
42* Manufacturing Projects	6	16	22	25	69
43 Cross Product Engineering	24	40	50	50	164
48 <b>TOTAL ENGINEERING EXPENSE</b>	171	280	370	401	1,222
50 Product Line Marketing	55	71	83	91	300
51 Domestic & Foreign Selling	207	205	227	246	885
52 Advertising & Promotion	6	35	40	40	121
53 Cross Product Marketing	45	34	47	48	174
59 <b>TOTAL SELLING EXPENSE</b>	313	345	397	425	1,480
61* <b>ADMINISTRATIVE EXPENSE</b>	93	122	127	136	478
62* <b>OTHER (INCOME) &amp; EXPENSE</b>	7	1	5	26	39
70 <b>PROFIT BEFORE FEDERAL TAXES</b>	(29)	711	1,361	1,740	3,783
		23.4%	30.3%	34.3%	27.2%





# INTEROFFICE MEMORANDUM

DATE: October 22, 1969

SUBJECT: Increase in Training Budget

TO: Operations Committee

FROM: Ed Savage

Recently, I proposed and the committee approved the capitalization of certain in-house computers. The training department's budget has been increased to reflect the capitalization of their current and proposed equipment.

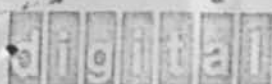
The quarter by quarter change is as follows: Quarter 2, \$40,500, Quarter 3 \$76,500, Quarter 4 \$83,500, Total \$200,500.

This change is reflected in the recast plan which I have enclosed.

I recommend that you approve this change.

ELS/ba





# INTEROFFICE MEMORANDUM

DATE: October 21, 1969

SUBJECT: REVISED TRAINING DEPARTMENT BUDGET (CC #643) to Reflect  
Change in Capital Budget (Depreciation) Procedure

TO: Mike Dowling

FROM: Bob Lassen

cc: Win Hindle

✓ Ed Savage

Attached is the revised Training Department Budget (CC 643) to reflect the increase in Depreciation resulting from capitalizing computer equipment in the Training Department.

The new Capital Equipment Budget dated October 6, 1969, was approved by Win Hindle, and the method of calculating the new depreciation amount was calculated and reviewed by Bob Lassen and Mike Dowling on October 21, 1969.

Bob

jfr



DIGITAL EQUIPMENT CORPORATION  
BUDGET WORKSHEET FOR COST CENTER NO. 643 (Training)

Prepared by R. Lassen

Approved by \_\_\_\_\_

Date 10/21/69

Account Number	Activity Code	R.S.	Account Name	Fiscal Year		Fiscal Year	
				First Quarter	Second Quarter	Third Quarter	Fourth Quarter
7781		1	Project Material Direct				
7788		1	Mfg. Transfer - Direct				
7789		1	Material Requisitioned Dir.				
7784		1	Project Labor Direct				
7701		2	Base Labor (A)				
7701	L	2	DEC Tech Salaries	65,000	16,500	23,000	34,000
7701		2					
7702		3	Overhead Labor (B)	113,700	121,500	129,000	135,800
7711			Holiday and Vacation (Budgeted for in A & B above)				
7753		3	Agency Personnel				
7703		4	Overtime Premium	100	100	100	100
7704		4	Personal Allowance	3,000	500	500	1,500
7705		4	Sick Pay	200	200	200	200
7715		4	Fringe Benefits (10% A & B)	11,400	12,200	12,900	13,000
7650			Professional service	3,000	3,000	3,000	3,000
7725		5	Occupancy Charge (27¢ Sq. Ft./Mo.) 22K/sq. Ft.	18,000	18,000	18,000	18,000
7726		6	Stationery Misc.	6,000	6,000	6,000	6,000
7728		6	Production Materials				
7729		6	Materials Requisitioned	3,000	3,000	3,000	3,000
7740		7	Airlines	2,600	3,100	3,100	2,600
7741		7	Auto Rentals	300	1,600	1,600	300
7742		7	Lodging	2,800	3,500	3,500	2,800
7727		8	Equipment Leased				
7731		8	Repairs & Maintenance				
7733		8	Depreciation	8,500	49,000	85,000	92,000
7752		8	Dues & Subscriptions				
7758		8	Tel & Tel	1,000	1,000	1,000	1,000
7759		8	Tuition Assistance	300	300	300	300
Total				238,900	239,500	290,200	313,600
Cost Center							





## INTEROFFICE MEMORANDUM

DATE: October 22, 1969

SUBJECT:

TO: Operations Committee

FROM: Ed Savage

Attached is a memo from Angela Cossette relative to a change in the DECUS budget for 1970. Apparently, at budget time, the funds for the printing of certain items were inadvertently left out of her projected needs.

1. Decuscope - 6 issues a year	\$12,000
2. Meeting Proceedings - 4 a year	12,000
3. DECUS Brochure - 1 every 2 years	3,000
4. Meeting programs and related material, for meeting - twice a year	10,000
5. Labor for art work involved in above	<u>4,000</u>
Total	<u>\$41,000</u>

If you approve this change the funds will come from the uncommitted portion of the shared project engineering funds.

ELS/ba  
Attachment





# INTEROFFICE MEMORANDUM

DATE: October 21, 1969

SUBJECT:

TO: Operations Committee

FROM: Angela Cossette

Reason for increase in budget for shared project DECUS P9807099, is that the printing expenditure was not allocated in the shared project forecast for Fiscal 1970. It is now preferred that a budget be established for the DECUS printing which is sent out through Advertising and Promotion, Cost Center 287. Presently a \$5K per quarter budget exists for in-house printing--N. LoRusso, 551. This will remain.

Material to be printed under 287 will be:

- DECUSCOPE - 6 issues a year, approximately 12K
- Meeting Proceedings - 4 a year, approximately 12K
- DECUS Brochure - 1 every 2 years, approximately 3K
- Meeting Programs and related material for meeting - twice a year, approximately 10K
- Labor for art work involved in above, 4K a year

Material to be printed under N. LoRusso, 551:

- DECUS Library Write-ups and Technical Manuals
- Miscellaneous DECUS Material--forms, etc.
- Program Library Catalog

Angela Cossette

AJC/fg



OPERATIONS COMMITTEE MEETING

October 20, 1969

AGENDA

1. Additions and Corrections to Minutes of the October 13th Meeting *Postponed to next week*
2. Marketing Review Committee Summary  
(See attached minutes of the October 14th meeting) *Postponed to next week*
3. Review of September Management Report

COMPANY CONFIDENTIAL



**CONFIDENTIAL**

**digital**

INTEROFFICE MEMORANDUM

DATE: October 15, 1969

SUBJECT: MINUTES OF OPERATIONS COMMITTEE MEETING, OCTOBER 13, 1969

TO: Operations Committee

FROM: Gene Cronin *JK*

Attendees: Nick Mazzaresse, Acting Chairman  
Win Hindle  
Ted Johnson  
Pete Kaufmann  
Brewster Kopp  
Stan Olsen  
Gene Cronin, Recorder

ASSIGNMENTS

Quickpoint and CNC

Nick Mazzaresse, Stan Olsen, Russ Doane, and Bill Long will get together and determine where we are on Quickpoint and CNC.

Displays

Bill Long will evaluate Bob Collings' operation and prepare a plan for submission to the Operations Committee.

Nick Mazzaresse will ask Bob Collings to come to an Operations Committee meeting when Ken is present.

DECISIONS

Minutes

The minutes of the October 6, 1969 meeting were approved.

Commercial Applications Proposal

John Cohen will proceed with his program until February 2, 1970 when the Operations Committee will again review his program and progress. In the meantime, he is to make no additional customer commitments.

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Minutes of Operations Committee Meeting, October 13, 1969

DISCUSSION

Bimonthly Payrolls

The proposal to pay all Wage Class 4 (salaried) employees every other week was discussed. The plan would be effective with the week ending December 29, 1969 and notice of the change would be given all employees October 23, 1969. Questions were raised as to whether or not an additional week's pay will be withheld. The legality of such a withholding was also questioned. These points will be clarified.

Quickpoint and CNC

The feeling was expressed that Quickpoint and CNC lacked clear goals and that perhaps Quickpoint is not profitable right now.

Options

Options were discussed.

GC/ml

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OPERATIONS COMMITTEE MEETING

October 13, 1969

AGENDA

1. Additions and Corrections to Minutes of the October 6th and 9th Meetings
2. Numerical Control Market Development - (Russ Doane)  
(See attached report)
3. Plans for Display Products - (Bob Collings)  
(See attached report)
4. Commercial Applications Proposal - (John Cohen)  
(See attached report)
5. Proposed Bimonthly Payroll for Wage Class 4 Employees - (Brewster Kopp)  
(See attached report from Bob Dill)
6. How to Sell Modules - (Fred Gould) *(not Included)*  
(See attached report)

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# CONFIDENTIAL

## MINUTES OF OPERATIONS COMMITTEE MEETING

October 6, 1969

Present: Ken Olsen, Stan Olsen, Win Hindle, Nick Mazzaresse, Brewster Kopp, Pete Kaufmann and Ted Johnson (Secretary)

General discussion on concern for possible economic downturn in face of present plant expansion. We decided to ask the product lines to tell us what would happen to their product line if the economy took a turn down. Due as a verbal report against a one-page report as part of the next management report.

1. Personnel Department PCP - W. Hindle

Brewster proposed a flexible budget for Personnel. Win and Brewster will resolve.

2. Marketing Review Committee Summary - T. Johnson

O.K.

3. Planned Sales Offices 1970 - T. Johnson

O.K.

4. FJCC and DECUS Attendance - T. Johnson

Ted will make out a list of people who should attend DECUS. Local, other, regional and Maynard.

All personnel sent should be utilized staffing the booth. Every spare hour should be scheduled.

Ken said we must institute a travel form to be filled out before each out of town trip. Brewster will design a form.

5. Canadian Benefit Plan - W. Hindle

Approved.

6. Commercial Applications - N. Mazzaresse/J. Cohen

Ken will talk to John Cohen about his plans. He wanted John to restrict his efforts to a few sales.

7. U.K. Space - T. Johnson

Approved.



Minutes of Operations Committee Meeting  
October 6, 1969  
Page Two

8. Auto Plan - T. Johnson

Ted will come back with a chart comparing the costs of leased cars and different mixes of costs the company will incur.

9. Cross-Product Line Memory Group - J. St. Amour

We will give the proposal to the Product Line Managers. Ted will bring it to Marketing Review Committee and ask Product Line Managers for a decision.

Ken also wanted a party line from the Marketing Review Committee on our policy (party line) on competing with OEMs.

10. Accounting Policies and Procedures - B. Kopp

We will send the memo to Bill Congleton to see if it answers his questions.

11. Proposal for Change in Westfield Board Shop Plan - D. Knoll

Stan, Ken and Pete will meet to decide on whether we need a waste treatment plan. Other aspects of proposal accepted.

12. Fire Drill Proposal - A. Hanson

Decided to test the gongs at night, give a written test to fire wardens, and maybe eliminate the need for a fire drill.

13. TWA Teleticketing

It was pointed out that present AA credit cards will be replaced by TWA cards. Approved with some wonderment why Horizons wouldn't be more aggressive for the 15% fee.

14. Operations Committee Secretary

Decided to experiment with Gene Cronin. Explain this is a trial to see what effect it has on the committee.

15. Treasurer Candidate

We outlined the jobs of a treasurer:

Banking and cash management  
Credit



Minutes of Operations Committee Meeting  
October 6, 1969  
Page Three

15. (cont'd)

Financial PR  
Options  
Company Leasing Program  
Payroll  
Insurance  
Pension Fund  
Long-term financing  
Accounts Receivable and Payable

Pete and AR & D (General Doriot, Dorothy Rowe) will interview McDonald, Brewster's candidate.

16. Status of Advertising and Promotion Budget - G. d'Annunzio

We decided to review the way we budget overhead next year, but keep the present system. Current overhead on direct labor dollars is 150% for two months. We want to question the P.R. program in detail.

17. Displays

Postponed.

18. Organizational Charts

Postponed.

19. AR&D Board

Will tour on Wednesday. Alistair M. Campbell, our new Canadian BOD member, will be here.

20. Options

Thursday A.M.

21. NAIS and NCTM Trade Shows

Bill Long's proposal to exhibit at these shows was accepted.

Ted Johnson

mr



Ken  
**CONFIDENTIAL**

**digital** INTEROFFICE MEMORANDUM

DATE: October 10, 1969

SUBJECT: MINUTES OF OPERATIONS COMMITTEE MEETING, OCTOBER 9, 1969

TO: Operations Committee

FROM: Gene Cronin *GC*

Attendees: Ken Olsen  
Win Hindle  
Ted Johnson  
Pete Kaufmann  
Brewster Kopp  
Nick Mazzaresse  
Stan Olsen  
Gene Cronin, Recorder

ASSIGNMENTS

Displays

John Jones and Bill Long will be asked to come to the Operations Committee meeting on October 20, 1969, to present proposals and/or discuss what we should be doing in displays. They should present a list of the projects they think they should work on. Ideally, they should have the same list.

Ted Johnson will ask Graydon Thayer for a list of the top five people in the country with a knowledge of displays.

Communications

Nick Mazzaresse will ask Bill Long to propose what we should go into in the communications area.

Ted Johnson will put together a definition of "communications." He will advise the Committee when he will have it completed.

Gene Cronin will fill in John Jones on the communications subject and encourage him to meet with Nick Mazzaresse.

P&L Basis for Biomedical Products Group

Brewster Kopp will insure that the accounting system is adjusted so that the Biomedical Products Group will have its own profit and loss responsibility next year.

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# CONFIDENTIAL

Minutes of Operations Committee Meeting, October 9, 1969

## Module Sales

Stan Olsen will have Fred Gould come to the next Operations Committee meeting, October 13, 1969, and make a presentation on what the module group wants to do on module sales.

## Wire-Wrap Machine

Gene Cronin will review the wire-wrap machine situation to determine whether we should sell them ourselves.

## Peripherals Listing

Gene Cronin will attempt to systematize and keep up-to-date a list of all peripherals. He will review lists used by the Operations Committee, Marketing people, and product lines to insure that the Operations Committee list is kept up-to-date.

## Operations Committee Procedure

Gene Cronin will remind the Operations Committee what its previous conclusions were on subjects which may arise for discussion a second time.

## Machine Tools and Education

Gene Cronin will look into the machine tool business to determine what the organization is now and what progress we are making in this area. He will do the same for education.

## GUIDANCE

### Attendance

All supervisors in the company should know where their people are at all times. (Hourly employees are not a problem.) If a salaried person is not at work, he must tell his supervisor where he is; he can notify the secretary, but his status must be clear. We must know when a person is on vacation status.

# CONFIDENTIAL



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Minutes of Operations Committee Meeting, October 9, 1969

DISCUSSION

Displays

There is no one man overseeing the overall display area. Bill Long would like to take on those things that relate to the 8-Family. John Jones has a proposal completed.

The question was raised as to what we should do about the alpha-numeric terminal. We can discuss with our most experienced people or we can find out what has been done by others and, if necessary, pay royalty on it. Both the Clinical Lab and the Hamburger projects need the alpha-numeric terminal. We must avoid having each project with a requirement doing the work in their own way or we will have several alpha-numeric terminals.

Nick Mazzaresse pointed out that there is a distinct display technology; there is room for it but the problem is that it cuts across product lines. There appears to be a lack of motivation to push the lite-pen.

Leominster Location

There is a need for a statement about our intentions in the Leominster area. With election on November 5, the candidates are getting restless. Stan Olsen suggested that our statement should say that we have moved into Leominster - are there now - we are having some difficulty with our expansion plans. It was agreed that by industry standards, our planning has not been unduly prolonged.

Communications

The need for a definition of communications was discussed. It is an all-encompassing field. Ted Johnson will attempt to work up a definition.

Long Range Planning - Organizational Charts

Members of the Committee swapped copies of their organizational charts showing their organizations as they are now, as they project them one and five years hence.

Brewster Kopp distributed a chart of the entire organization showing who reports to each vice president.

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# CONFIDENTIAL

Minutes of Operations Committee Meeting, October 9, 1969

There was a discussion of the advisability of having each product manager have his own model shop, drafting, and mechanical engineering capability. Nick Mazzaresse suggested that if we are to aim in this direction over the next five years, perhaps we should start now.

A discussion took place on the product manager system and the DEC concept of support with centralized services.

The roles and relationships of the product lines and the supporting operations were discussed at length. The need for appreciation of the role of each was stressed and agreed upon. The product manager does not have to "buy the service." Everyone is free to propose otherwise. Present exception: accounting.

The need for broad-gauged people as candidates for project management positions was discussed at length.

The following tentative list of assignable functions was developed during the meeting:

Model Shop	Sales
Programming	Advertising
Mechanical Engineering	Production Planning
Special Systems	Product Planning
Peripherals	Order Processing
Cafeteria	Shipping
Cost Accounting	

The list is really longer than this and should be expanded. Product line vice presidents should give this list to their product managers and tell them to draw a circle around those functions they wish to operate.

When we have a product line doing \$60 million worth of business, problems arise with respect to support services. We haven't built an organization for a \$60 million line.

Our tastes in product design are sometimes very expensive and add materially to product costs. (Example: elaborate wooden console prototype.) Elaborate tastes frequently make things hard to do.

In considering future business opportunities, we should keep oceanography on the list.

## Options

Discussions will be continued.

# CONFIDENTIAL



**digital**

INTEROFFICE MEMORANDUM

DATE: October 6, 1969

SUBJECT: Proposal for Bimonthly Payrolls

TO: Operations Committee

FROM: R. F. Dill

I propose that all Wage Class 4 employees of which we have approximately 780 be paid every other week. I estimate that the savings to the corporation will be around 40 to \$50,000 after taking into consideration such items as reduced hires in the payroll area, savings on processing time for check reconciliation, check preparation, preparation of registers, controlling functions, and related savings in the computer room and general accounting.

If this proposal is accepted we plan to notify the employees as of October 23rd which would give them two and one half months notice. The new plan would be effective with the week ending December 29, 1969. This proposal has been presented to the Personnel Committee and has had their blessing.

ega

*R. F. Dill*





# INTEROFFICE MEMORANDUM

DATE: October 8, 1969

SUBJECT: NUMERICAL CONTROL MARKET DEVELOPMENT

TO: Operations Committee

FROM: Russell Doane

Here is a summary of where we are and where I want to take us, and how. This is not a new proposal, but a broad view of how our existing and planned NC effort relates to the total market, and our long-range prospects.

I Snapshot of DIGITAL in NC: Where are we today?

A. Tape Preparation for Conventional NC

So far two builders of turret punch presses, Houdaille (Strippit) and Warner & Swasey (Wiedemann) have bought a total of 80 PDP-8 family computers. The only other major suppliers of NC turret punch presses, Behrens (Austin-Hastings) and W.A. Whitney, have each made their first Quickpoint sale this summer. Computer aided punch press tape preparation is easiest to justify because of the high rate at which punch presses produce holes, leading to a high consumption of part program tapes.

We are cleaning up Quickpoint so that Quickpoint OEMs can more effectively develop the market for low cost computer-aided tape preparation, and I feel this phase is about half accomplished. Quickpoint is competing with Infocom's version (also PDP-8L) and with time-shared terminals and BIT's system might be a threat though we haven't run into it much. Time sharing may be serious competition if terminals costs go down. Quickpoint and derivatives (Wiedepoint) grow with the NC market.

B Direct Connection of Computers

Significant CNC applications so far have been measuring, drafting, and wire wrap machines. At the May '69 ASTME machinery show, there were 22 DEC computers as against less than a dozen from all other suppliers (chiefly BIT). Two automated drafting machine suppliers use our 8 family computers. We are currently the leading supplier of small computers for NC, and the only significant supplier of computers directly interfaced to machine axes.

I have met with thirteen machine tool builders to discuss CNC applications (as distinct from tape preparation systems), to educate myself and to prepare the way for sales. These contacts are listed on a separate sheet. I can report both strong interest and strong skepticism about the benefits of small computers.



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We are in the process of developing a minimum hardware, minimum cost system to accomplish these objectives:

1. Demonstrate the economic feasibility of replacing special-purpose computers (conventional NC), helping our present CNC OEMs to sell.
2. Develop hardware and software modules to help new CNC OEMs get started.
3. Become an established supplier of CNC ourselves at the low-cost, high volume end of the spectrum.

There is very little competitive activity in cheap real-time computer NC substituting for conventional NC, and I expect builders of conventional NC to stand pat with the latest IC systems for two years. Most of the competitive computer activity at present is giant systems for people who can justify high costs for management information and control.

We have made no effort to develop NC applications for medium-size and large computers, though there should be some in the future. (See below.)

At present we have five people working full-time on numerical control.

## II Moving Picture of the NC Market

### A. History

The initial impetus for NC arose from the aircraft industry's need to machine complex contours. In the early '50s the first NC demonstrations of a milling machine at M.I.T. triggered active development efforts that resulted in commercial availability by 1960. Since then, eighteen thousand NC systems have been installed, mostly for metal machining. Conventional NC appears to have filled 10% of the potential machining market (i.e. economically justifiable installations), not counting future growth of metalworking itself.

The first numerical controls were custom systems for milling wing spars and skins. The first commercial NC controls were simpler, with the first volume product being the Pratt & Whitney TAPE-O-MATIC drilling machines. Since then, NC has been sold in volume for drilling, milling, punching, and turning machines. The same control systems have also been applied to welding, riveting, and flame-cutting in much smaller quantities. (Most grinding machines have simple motions and NC is not appropriate.)

### B. The Current Picture

General Electric has 55% of the market for NC control systems. Cincinnati and Giddings & Lewis are the two largest machine tool companies in the U.S., and both build their own. Pratt & Whitney also builds its own. Other machine tool



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builders buy their controls from G.E., Bendix, Bunker-Ramo, Westinghouse, or one of several small fry. Cincinnati will soon begin offering their controls to other machine tool builders. Superior Electric and ICON offer retrofit systems directly to end-users with open-loop stepping motor drives. Ferranti, Siemens, AEG, and Olivetti serve Europe and Fujitsu builds controls for Japan, and a few of these get to the U.S. in spite of field service problems.

Only G.E., Bunker-Ramo, and Sundstrand (a machine-tool manufacturer) are actively pushing the use of real-time computers for NC. All three emphasize the addition of a big mass-memory system to a large complex of conventional NC controllers. (G.E. actively publicizes the idea that small computers can't be justified to supplant conventional NC.) IBM and CDC have also been discussing this approach with tool builders. Tool builders I've spoken with say the market for these big systems is a narrow one; there aren't that many large scale machine shops (though this may change).

G.E. has an agreement to manufacture Interdata computers, but evidently they don't intend to use them for direct NC. Nobody has a standard product in this field except Houdaille, and I feel this is our best point of entry for a new NC product.

#### C. Long Range CNC Prospects

There is now one small computer preparing part programs off-line for every 150 conventional NC controls. I don't yet understand the economic limits on this ratio, but it seems plausible that it could be reduced to 50. Even if direct computer control ultimately takes half the NC market, these assumptions predict the sale of 5000 tape preparation systems over the next fifteen years as the NC market approaches saturation. This should be a steady income producer at a low level of effort.

However, if we sell one small computer in a real-time system for every six NC machines sold during this period, the total will be 25,000 systems. I guess the peak should be reached about 1977, at an annual rate above 3000. If we average a 30% annual growth rate over this period this would be about 6% of the company's business.

#### D. Other Long Range Prospects

Right now low cost computer NC has to be justified by direct comparisons to the price of existing hardware, with little credit given for novel capabilities. As users gain experience this will change, and I think in three years management information and control will be the dominant motivation for computers in manufacturing. Already G.E., Sundstrand, and Bunker-Ramo are bearing down hard on this theme, since their systems cannot be justified any other way. Everything we do to develop our man-machine interface capabilities will help.



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Some NC machines need APT compilers for preparing very complex part programs, and APT on a PDP-10 will be useful if we want to sell the 10 as a complete manufacturing data center. However, the APT "Long Range Program" would commit us to continual revisions if we were going to claim state-of-the-art capabilities, and APT is a big system. A well chosen subset like INFOCOM's "UNIAPT" would be useful and much less trouble. (UNIAPT runs on an 8K PDP-8L with 65K disk.)

Twenty-four bits is an all purpose word length for metalworking, so if we ever build a 24 bit computer we should plan it for manufacturing-type OEMs. Meanwhile, I think the PDP-12 and similar display systems are destined for important manufacturing applications as soon as real-time management information and control come into full fashion.

Sixteen bits is too few for single-precision control of any but small cheap machines. As long as a 12 bit system is lower cost, I don't see 16 bit computers dominating even for these. A really minimum 18 bit system would be worth looking at when the volume of 12 bit systems gets large.

### III What should we do beyond current CNC projects?

- A. Quickpoint could have contouring and a bigger part program buffer, and would be much easier for dunderheads to operate if we rewrote it using ideas from the direct NC project. I suspect this can be justified in '71 but right now I don't understand the market well enough to be sure. It won't be appropriate for six months anyway, because it will take that long to make the current product neat and smoothly saleable.
- B. It might be tempting for us to make an 8K version of the 8L DNC. I think we should resist the temptation, and let machine tool builders and other OEMs do this instead. We should stick to things our OEMs can't easily do; there are plenty of those.
- C. The PDP-12 with its 24 bit double-word size, 'scope, and DEC tape could be a way to get cheap what G.E. and the others are offering dear. Mostly this means developing some software, plus a set of standard interfaces for about twenty existing conventional NC systems. I expect to propose this in June as the next CNC project.
- D. Real-time access to manufacturing process data looks like "the wave of the future" to me. Computer NC makes a good springboard because it is already heading toward a management-information orientation. I think it would profitable here at DEC, and Tom Stockebrand and others are doing some of the learning that could help us start a series of product developments in this area.



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## Appendix: MACHINE TOOL BUILDERS SEEN SO FAR

<u>COMPANY</u>	<u>NC MACHINES</u>	<u>COMMENTS</u>
Austin-Hastings	Turret Punch Press	Behrens Importer
Cramik	Skin/Spar 5 Axis Mills	U. K.
? Giddings & Lewis	Drilling, Milling, Boring	Build own controls. Gisholt lathes a division
* Gleason Works	Gear grinders, shapers; has no NC yet.	Computer NC may replace gear trains; applying 8L; headed for '70 show
Herbert-Ingersoll	Many types	U. K.
* Houdaille	Turret Punch Press	Build own controls using 8L. Exhibited already.
? Jones & Lamson	Lathes	Have a PDP-8 DNC competitor but we don't know who yet
Lucas	Boring Mills	Div. Litton
Monarch	Lathes	
New Britain	Drilling, Boring	Div. Litton
? Pratt & Whitney	Drilling, Milling	Build own controls
* Lodge & Shipley	Lathes	Buying CNC System through C.S.S. for '70 show
* Wiedemann	Turret Punch Press	Developed "Wiedepoint" from Quickpoint; working on 8L DNC for '70 show.

\* Existing OEMs for CNC or DNC

? Likely OEM prospects within the year

NOTE: Machine Control in Bedford also builds custom DNC systems using PDP-8L for metal machining, and a half-dozen companies build DNC for non-metalworking DNC applications on wire-wrap measuring, and drafting machines using the 8L.





# INTEROFFICE MEMORANDUM

DATE: October 7, 1969

SUBJECT: Refinement of Commercial Applications Proposal

TO: Operations Committee

FROM: John Cohen

Based on some conversations I have had with Nick Mazzaresse and Ken Olsen, I would like to add the following to the Office Products Industry Proposal.

The work will be divided into three phases. The first phase will run through January. During this time we will complete the G. E. Stimpson installation, prepare another demonstration system here, get a brochure which outlines the product, write an extensive users manual and prepare courses for both computer operators and DIBOL programmers. On February 2, 1970, we will hold a mock presentation of the OP-8 system and its associated documentation for the members of the Operations Committee.

Phase two will run from February through June 1970. During this time we will get ten additional customers and install their OP-8 systems. When these pilot systems are completely operational, we will evaluate any problems which occur and make appropriate changes to the documentation or to the courses. Full scale marketing will begin in July 1970 as discussed in the original proposal.

I request that final approval be given to this proposal as soon as possible.



digital

INTEROFFICE MEMORANDUM

DATE: October 6, 1969

SUBJECT: Proposal for Bimonthly Payrolls

TO: Operations Committee

FROM: R. F. Dill

I propose that all Wage Class 4 employees of which we have approximately 780 be paid every other week. I estimate that the savings to the corporation will be around 40 to \$50,000 after taking into consideration such items as reduced hires in the payroll area, savings on processing time for check reconciliation, check preparation, preparation of registers, controlling functions, and related savings in the computer room and general accounting.

If this proposal is accepted we plan to notify the employees as of October 23rd which would give them two and one half months notice. The new plan would be effective with the week ending December 29, 1969. This proposal has been presented to the Personnel Committee and has had their blessing.

egs

*R. F. Dill*



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OPERATIONS COMMITTEE MEETING

October 9, 1969

Time: 8:30 AM

AGENDA

Follow-on discussions of the Woods Meeting on the following topics:

1. Displays
2. Communications
3. Organizational Charts
4. Options

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DIGITAL EQUIPMENT CORPORATION



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OPERATIONS COMMITTEE MEETING

October 6, 1969

AGENDA

1. Additions and Corrections to Minutes of the September 29th Regular Meeting and the "Woods" Meeting of September 29th and 30th
2. Marketing Review Committee Summary - (Ted Johnson)  
(See attached minutes of the September 29th meeting)
3. Planned Offices for Fiscal Year 1970 - (Ted Johnson)  
(See attached report)
4. FJCC and DECUS Attendance - (Ted Johnson)  
(See attached report)
5. Proposed Space Increase in U.K. - (Ted Johnson)  
(See attached report)
6. Proposed Sales and Service Automobile Plan - (Ted Johnson)
7. Proposed Exhibition at NAIS and NCTM Trade Shows - (Bill Long)  
(See attached report)
8. Proposed and Compulsory Benefit Changes for Canada - (Paul Chambers)  
(See attached report)
9. Manufacturing Backlog Reporting - (Ron Smart)  
(Report distributed for last week's meeting)
10. Commercial Applications - (John Cohen)  
(See attached report)
11. Proposal to Establish a Cross-Product Line Memory Group - (Bob Hamel/Joe St. Amour)  
(See attached report)
12. Personnel Department Program Change Proposal - (Win Hindle)  
(See attached report from Mike Dowling)
13. Accounting Policies and Procedures - (Brewster Kopp)  
(See attached report from Bob Dill)
14. Proposal for Change in Westfield Board Shop Plan - (Dave Knoll)  
(See attached report)
15. Status of Advertising and Sales Promotion Budget - (Gabe d'Annunzio/Clayton Rix)  
(See attached report)
16. Proposed Fire Drill - (Al Hanson)  
(See attached report)
17. Proposal to Solely Use TWA Teleticketing System - (Nick LoRusso)  
(See attached report)

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# INTEROFFICE MEMORANDUM

DATE: October 2, 1969

SUBJECT: Planned Offices in FY'70

TO: Operations Committee

FROM: Ted Johnson

Here is a list of offices we currently have in our plans for Fiscal Year 1970, as requested.

mr



digital

INTEROFFICE MEMORANDUM

DATE: October 2, 1969

SUBJECT: FJCC AND DECUS ATTENDANCE

TO: Operations Committee

FROM: Ted Johnson

I would like to hold a Regional Managers' Meeting in Las Vegas during FJCC and DECUS time. I would also like to send several other people to DECUS ( a few Software Support Managers and one Biomedical specialist).

I would expect the Regional Managers and these people to play a very active role at DECUS in talking with customers as well as being on hand to talk to key customers at FJCC.

I would like to know how this fits in with other people's plans. This would be the only Regional Managers' Meeting until January.

mr



**digital**

## INTEROFFICE MEMORANDUM

DATE: September 25, 1969

SUBJECT: New Space Plans For Field Offices FY70

TO: Ted Johnson

FROM: <sup>Bio</sup> Bill Farnham

<u>AREA</u>	<u>LOCATION</u>	<u>APPROX. AMOUNT</u>	<u>TIME</u>
<u>CENTRAL REGION</u>			
	Detroit	2000	Q3
	New Orleans	1500	Q4 (Q1 FY71)
	Milwaukee	1500	Q4
<u>NORTHEAST REGION</u>			
	Providence	1500	Q3
<u>MID-ATLANTIC REGION</u>			
	None		
<u>WESTERN REGION</u>			
	Berkeley	1500	Q2
	Sacramento	400	Q3
	San Diego	400	Q3
<u>CANADA</u>			
	Vancouver	1500	Q3
<u>EUROPE</u>			
	UK Training & Sales	8000	Q2
	Frankfurt	2000	Q4 (Q1 FY71)
<u>AUST.-JAP.</u>			
	None		

WHF:mar





# INTEROFFICE MEMORANDUM

DATE: September 30, 1969

SUBJECT: Proposed and Compulsory Benefit Changes - Canada

TO: Operations Committee

FROM: Personnel (Paul Chambers)

I have attached:

1. A summary matrix of the findings of a recent benefit and policy survey I conducted in the Carleton Place, Ottawa area.
2. An outline sheet comparing the current and proposed benefit changes.

Denny Doyle and Cy Kendrick have reviewed and approved this proposal.

## SUMMARY OF REASONS FOR PROPOSED CHANGES

Shift Premium - Most of the companies surveyed pay 15¢-20¢ per hour for 2nd shift. They do not have a 3rd shift. Digital currently pays 10¢ per hour for all shifts. Soon we will have a large 2nd shift operation and a potential 3rd shift as well. In addition, our shifts are rotating on a week on, week off basis which places further burden on the employee involved. The proposed 10% for 2nd shift and 15% for 3rd shift is identical to the policy in the U.S. and we strongly feel it is a fair and competitive change.

Group Insurance - As of October 1, 1969, the Ontario Government is introducing a mandatory medical plan referred to as OSSIP. This plan replaces the medical section under our private Travelers Insurance Policy. OSSIP will cover all physician connected expenses.

The OSSIP Plan will be the second of two compulsory insurance programs in Ontario. The other plan still in effect is the Ontario Hospital Plan. This plan covers ward room charges and hospitalization expenses.



Therefore, in total, the employees in Canada are affected by 3 separate plans:

OSSIP - Covers physician expenses

OH - Covers ward and miscellaneous hospital charges

Travelers Insurance - Covers Life Insurance, A&D&D,  
Major Medical, Weekly Disability, Semi-Private  
Room Charges

The cost of our current plan in Canada is shared on a 50%-50% basis by DEC and the employee. This ratio of cost sharing is no longer competitive. The survey and recommendations from our Insurance Broker also show that our life insurance and major medical schedules are quite low as well.

In summary, we strongly feel that the attached insurance proposal and the resulting increased premium to the Company and employees is now competitive and reasonable and will be well received by the employees.

If you require further details, in particular those involving the insurance changes, I would very much like the opportunity to present them to you as you review this proposal.

PFC/gl



Canadian Benefit and Policy Survey - 7/69

Summary

	<u>LEIGH</u>	<u>FINDLAYS</u>	<u>CDC</u>	<u>RCA</u>	<u>DEC</u>
<u>Holidays</u>	9	9½	9	9	9½
<u>Vacations</u>					
- 1wk	6mos	1yr	6mos	6mos	6mos
- 2wks	1yr	3yrs	1yr	1yr	1yr
- 3wks	5yrs	10yrs	10yrs	10yrs	10yrs
- 4wks	-	-	20yrs	20yrs	-
- 1day 6+	no	no	yes	yes	yes
<u>Sick Pay</u>	6days	none	15days	-	12days
<u>Tuition Refund</u>	100% Tuition	100% All	50% All	-	\$450/50% C Grade
<u>Payroll Savings</u>	no	no	no	-	no
<u>Credit Union</u>	yes	no	yes	-	no
<u>Pension Plan</u>	yes	yes	yes	-	yes
(Contributory match up to 4%)					
<u>Stock Purchase</u>	yes	no	no	-	yes
(10 shares maximum - 85% of value)					
<u>Jury Pay</u>	yes	yes	yes	yes	yes
(All make up difference)					
<u>Family Death Pay</u>	3days	3days	3days	3days	3days
(All define immediate family less than DEC)					
<u>Shift Premiums</u>	20¢	12¢	15-17¢	8%	10¢
<u>Call-in Pay</u>	4hrs	4hrs	4hrs	4hrs	-



Canadian Benefit and Policy Survey - 7/69

Summary

	<u>LEIGH</u>	<u>FINDLAYS</u>	<u>CDC</u>	<u>RCA</u>	<u>DEC</u>
<u>Supper Pay</u>	no	\$1.50 flat rate	no	-	yes $\frac{1}{2}$ hr
<u>Rest Periods</u> (5minutes wash up time end of shift)	2-10min.	2-10min.	2-10min.	2-10min.	2-10min.
<u>Cafeteria</u>	yes	-	yes	-	no
<u>Recreation</u> (Contributory 50¢ - \$1.00 per week - Company also contributes)	yes	no	yes	-	yes-\$10 per employee)
<u>Overtime</u>	1 $\frac{1}{2}$ -8/40 2 $\frac{1}{2}$ holiday	1 $\frac{1}{2}$ -8/40 2 $\frac{1}{2}$ holiday	1 $\frac{1}{2}$ -8/40 2 $\frac{1}{2}$ holiday	1 $\frac{1}{2}$ -8/40 2 $\frac{1}{2}$ holiday	1 $\frac{1}{2}$ -8/40 2 $\frac{1}{2}$ holiday
<u>Time Clocks</u>	none	all punch	same as DEC	all punch	punch and fill in
<u>Attendance</u>	Call-in and notification policy same as DEC with all				
<u>Insurance</u>	See attached				



Group Insurance

LEIGH

RCA

CDC

DEC

Life Insurance

2x annual salary  
to max of 50K

4K-25K  
i.e. 12,000=20K

6K-20K  
i.e. 10K=16K

3K-10K

AD & D

same as above  
  
65% of annual salary  
to max of 1K per  
month - 13wks

none  
\$36-63  
26wks

1K  
\$40-60  
13wks

same as above  
\$30-60  
26 wks

Non-Occ. Illness

same as above  
to age 65(paid by Co)

60% of salary to  
age 65(paid by Co)

66 2/3 of salary to  
age 65

LTD

made up of semi pri-  
vate rate-120 days

\$4day in excess  
180 days

\$4 day in excess  
70 days

Major Medical

\$25 deductible per  
yr. 10K max 80%

10K \$25 deductible  
per yr 80%

5K \$25 deductible per  
yr 80%

Doctor Visits

Pay according to  
Ontario fee  
schedule

\$3 to max of \$250  
\$200 max

\$4 visit to 70 days max  
\$350 max

Surgical

+ \$25 165.00  
anes- 190.00  
thesia 50.00

125.00  
100.00  
50.00

150.00  
300.00  
150.00

\$50

\$50

Diagnostic

Employee pays-  
Co. pays semi-private

50-50 payment

Ontario Plan

Month

1.70 single  
3.40 1 dependent  
7.00 2 dependents

Month

Single Married  
4.30 6.20 max  
2.50 4.40 ave.  
2.30 4.20 min.

Month

Single Married  
4.88 8.45 max  
4.01 7.49 ave.  
3.14 6.72 ave.  
+LTD  
1.80 4.77

Premiums

cost to employee



FY 70

BENEFIT PROPOSAL - CANADA

	<u>CURRENT</u>	<u>PROPOSED</u>
1. SHIFT PREMIUM	10¢ per hour-all shifts	10% 2nd shift-15% 3rd shift
2. GROUP INSURANCE		
a. <u>Life Insurance</u>		
\$65 or less	3K	6K
\$65-\$125	6K	10K
\$125-\$150	10K	15K
\$150-\$200	10K	20K
\$200+	10K	25K
b. <u>Accidental Death</u>	same as above	same as above
c. <u>Weekly Disability</u>		
\$65 or less	\$30/26weeks	no change
\$65-\$125	\$45/26weeks	no change
\$125-\$150	\$60/26weeks	no change
\$150+	\$60/26weeks	* self insure up to 180 days (salaried employees only)
d. <u>Major Medical</u>	\$5,000-\$25 deductible	\$15,000-\$25 deductible
e. <u>Room Charge</u>	Up to \$4 in excess of ward charge for semi- private-70 days	Pay full difference between ward and semi-private room- 70 days
f. <u>Long Term Disability</u>	Employee pays 100%	no change
g. <u>Dr. Visits</u>	\$4per day for 70 days	OSSIP Plan
h. <u>Maternity</u>	\$150-\$300	OSSIP Plan
i. <u>Surgical</u>	\$350	OSSIP Plan
j. <u>Diagnostic/Lab</u>	\$50	OSSIP Plan
k. <u>Hospitalization</u>	Ontario Hospital Plan	no change

\* We recently converted to a self insured plan for this coverage for U.S. (salaried) employees.



CURRENTPROPOSED

## 3. CONTRIBUTION PHILOSOPHY

Travelers Plan, 50-50

Company pays 100% for employee  
50-50 for dependents

OSSIP Plan, 50-50

Company pays 100% for employee  
50-50 for dependents

OH Plan, 50-50

Employee pays 100%

LTD Plan, employee  
pays 100%

Employee pays 100%

## 4. ANNUAL COST TO COMPANY

\$19,599.60

\$36,031.08

(\$129 per year per  
employee-152 employees)(\$163 per year per employee-  
221 employees)

## 5. MONTHLY COST TO EMPLOYEE

Employee Weekly  
Salary ScheduleSINGLEMARRIEDSINGLEMARRIEDFAMILY

\$65 or less

6.97

13.30

6.58

16.16

18.14

\$66-\$70

7.84

14.17

6.58

16.16

18.14

\$71-\$100

9.14

15.47

7.88

17.96

19.44

\$101-\$125

10.22

16.55

7.88

17.96

19.44

\$126-\$150

11.09

17.41

8.96

19.04

20.52

\$151-\$200

12.40

18.72

10.26

20.34

21.82

\$201 &amp; up

14.56

20.88

12.43

22.51

23.99





# INTEROFFICE MEMORANDUM

DATE: October 2, 1969

SUBJECT: Increased Space in UK

TO: Operations Committee

FROM: Ted Johnson

## PROPOSAL SUMMARY

To take on a standard UK 21 year lease, 8000 square feet of office space and after 18 months an additional 12,000 square feet of warehouse space.

## BACKGROUND

The Company presently has in Reading 16,753 square feet divided between two buildings at No. 3 and No. 4 Arkwright Street. Both of these leases are 21 years in length and are assignable. Presently this space houses in addition to UK functions some European activities such as European training, Regional accounting and the European Free Trade Area (EFTA) portion of UK production. The space is being used at maximum density and in fact, we are presently in violation of the Factories & Office Act due to overcrowding.

## PROPOSAL

Geoff Shingles has made a three year space plan for the UK (attached). This plan shows at the end of three years (FY72) that 34,600 sq/ft. of space is required. This assumes that European accounting, and European training remain in the UK and also that UK Production does not expand beyond its present authorized amount. Even if these areas were moved and production was not expanded, the requirement at the end of FY72 would be 27,600 (See page 2 of attached proposal for breakdown).

The proposal calls for initially 8000 sq/ft. of office space to be used by Sales and Training. After 18 months, an additional 12,000 square feet of space would be used for SW Sales and UK field service. This would leave 10,000 sq/ft. at No. 3 Arkwright for Production at the end of FY72 and 6000 sq/ft. for accounting and special systems at No. 3 Arkwright.



The space is well located and about 4 minutes from our present facilities. Proximity to our present space was a basic consideration and it is the only space with expansion that could be found in four months of search.

COST

The total occupancy cost for the 8,000 sq/ft. is \$3.90 sq/ft. which includes rent, utilities, insurance, amortization of leasehold improvements, janitorial, etc.

For the 12,000 sq/ft. section, the price is 3.00 per sq/ft. The basic rental price (\$2.40) is considered to be to a fair price at less than market value. The real estate agent is the same one the Company has used previously and he is, in the opinion of Geoff Shingles, an excellent negotiator.

SUMMARY:

BUILDING FEATURES

1. Within 4 minutes of present Reading offices.
2. Modern well lit and attractive (photo available)
3. Within 18 months 12,000 sq/ft. of expansion is available.
4. Adequate parking.
5. Price is considered fair and is slightly below market.

BUDGET

1. 8000 sq/ft. of space was budgeted for UK Training and Production in FY70 budget.

RISKS

1. Not to utilize the entire space at Arkwright Road and the new building due to the moving of European accounting, training and not expanding Production.

This can be partially offset by the fact that the new building is big enough to handle most all of the functions at Arkwright Road. The lease on these buildings is assignable and according to Geoff Shingles, he regularly receives enquiries concerning our interest in sub leases.



RECOMMENDATION

The three year projection, in Geoff Shingles proposal, looks reasonable even with the uncertainty of several activities moving out of Reading. It would appear that at the end of three years that we will need 30,000 sq/ft. at a minimum. This specific building interfaces well with the three year plan and has the added advantage of not having to pay for the 12,000 sq/ft. section until after 18 months which fits into the time schedule for utilizing the space.



INTEROFFICE  
MEMORANDUM

DATE 9th September, 1969

SUBJECT

Space Planning Proposal for the UK for Fiscal Years 1970, 71, 72

TO

Operations Committee

FROM

Geoff Shingles

c.c. J-C Peterschmitt  
Norman Hutchings  
Dave Lawrence  
Chris Morris  
Al Gordon  
Bev Hallman  
Laurie Ashcroft  
Ed Savage

*Geoff*

BACKGROUND

In the UK in the past, due to our rapid growth and insufficient long range planning our acquisition of space has been inadequate. Usually it has been completely full upon occupation with no room for subsequent expansion. This is the situation we presently have at Nos. 3 and 4 Arkwright Road. In some departments we are indeed contravening the Factories & Offices Act due to overcrowding.

In an attempt to avoid a recurrence of this situation in the future, the plan in this proposal was generated for the next three years.

PARAMETERS ON WHICH PLAN WAS MADE

It was assumed

- a) Our business in the UK would be growing at approx. 35% p.a. or better. This seems realistic and is what we have achieved or bettered to date.

FY 1970	\$ 8.2M
FY 1971	\$11.5M
FY 1972	\$15.4M

- b) Our manpower would be based on the growth in a) using the usual relationships we employ in expense budgeting.

/Continued ...



- c) The Production unit for UK and EFTA according to the plan just approved should use Reading space optimally before moving.

### SPACE REQUIREMENTS

The tables below indicate the planned space requirements based on the above parameters:

	<u>Located in Reading</u> <u>Space Planning</u> <u>FY 70, 71, 72</u>				<u>FY 72 W/O</u> <u>Production</u> <u>Expansion, Eur.</u> <u>Tra. &amp; Accounts</u>
	<u>SEPT</u> <u>1969</u>	<u>FY 70</u>	<u>FY 71</u>	<u>FY 72</u>	
<u>U.K. DISTRICT SALES</u> (incl. Sales, Adv., Soft. Supp, Personnel)	3,800	(28) 4,200	(33) 5,300	(40) 5,800	5,800
<u>U.K. DISTRICT F.S.</u>	1,800	(22) 2,200	(38) 3,000	(49) 3,900	3,900
<u>U.K. SPECIAL SYSTEMS</u> (Assuming no German SS)	1,100	(11) 1,700	(15) 2,200	(17) 2,700	2,700
<u>U.K. PRODUCTION</u> (UK & EFTA only) (incl. Order Proc. & Shipping)	6,500	(27) 6,500	(45) 7,300	(57) 9,600	7,000
<u>U.K. TRAINING</u>	1,800	(12) 7,000	(12) 7,000	(12) 7,000	4,000
<u>S.W. SALES</u>	850	(5) 900	(8) 1,100	(10) 1,400	1,400
<u>S.W. SERVICE</u> (Reading)	300	(21) 1,000	(29) 1,000	(38) 1,200	1,200
<u>EUROPEAN ACCOUNTS</u>	600	(12) 2,000	(14) 3,000	(16) 3,000	600
		(138)	(194)	(239)	
	16,753	25,500	30,000	34,600	27,600



Located Outside Reading

	<u>FY 70</u>	<u>FY 71</u>	<u>FY 72</u>
<u>S.W. AREA F.S. (BRISTOL)</u>	(5) 450	(8) 550	(10) 700
<u>MIDLAND AREA SALES</u>	-	(5) 600	(6) 750
<u>MIDLAND AREA F.S.</u>	-	(6) 600	(9) 750
<u>MANCHESTER F.S.</u>	(9) 800	(14) 1,100	(20) 1,500
<u>MANCHESTER SALES</u>	(6) 1,000	(6) 1,000	(8) 1,200
<u>SCOTLAND SALES</u>	-	(5) 700	(8) 800
<u>SCOTLAND F.S.</u>	-	(7) 700	(9) 900
<u>YORK F.S.</u>	-	(6) 600	(8) 700
<u>LONDON SALES</u>	(11) 1,400	(15) 1,600	(18) 1,800
<u>LONDON F.S.</u>	(22) 1,400	(29) 1,800	(42) 1,900
<u>CAMBRIDGE F.S.</u>	-	-	(6) 600
	(53) 5,050	(101) 9,250	(144) 11,700
<b>TOTAL FOR U.K.</b>	(191) 29,250	(295) 39,250	(383) 56,300

/ Continued ...





Our present space situation is as follows:

Located in Reading

- (i) At present we have a total of 16,000 ft.
- (ii) For FY 70 we have budgeted a further 8,000 ft. for Training and Accounts expansion - this has been approved. Giving a total of 24,000 ft. This will give enough space in Reading for this FY only.

A more ideal and planned situation would be to obtain a unit of 8,000 feet approx. with expansion capability of (34,600-24,200) approx. 11,000 ft. over the next two years. By the end of FY 72 due to Board of Trade regulations our UK production unit would have expanded to the maximum in Reading and to expand further would require a move to a development area (this is the subject of a separate planning exercise being undertaken by G. Shingles and A. Gordon).

If this move was made more space would be freed in Reading for non-production expansion or part of our existing premises could be dispensed with. This is no problem as space is at a premium and frequent unsolicited offers are made (see attachment).

(A separate proposal is attached for a building offering the expansion capability required.)

Located Out of Reading

- (i) The present London sales and service space of 3,000 ft. will require a supplement of a small office in or around Cambridge in 1972. This is due to a buildup of machines in this area.
- (ii) The expansion of the Manchester space which has been approved is adequate for the next four years providing offices are opened in York and Scotland during FY 71.
- (iii) To handle the increasing needs of F.S. and sales, offices will be required in the Midlands and Bristol late this FY or early in FY 71.

(Separate proposals will be offered for these requirements as they arise.)

/Continued...





CONCLUSION

Your approval is requested to expand our space in the UK along the lines indicated. This approval will enable space to be selected and specific proposals to be presented to you in a timely fashion.

GSS/MEP

ORIGINAL



78 Mount Street, Mayfair  
London W1Y 5HJ  
Telephone 01-499 5432

- 2 SEP 1969

VP/LKB/RMF

26th August, 1969

K. Olsen, Esq.,  
Digital Equipment Corp (U.K.) Ltd.,  
3 Arkwright Road,  
Reading Berks.

Dear Sir,

Clients of ours, a substantial and extremely well-known Company, have asked us to write to you to enquire whether you would be interested in disposing of your interest in your Reading Factory, or alternatively in sub-letting a portion of the accommodation.

May we assure you that this is a genuine enquiry on behalf of Clients by whom we are fully retained, and we will therefore not be looking to you for payment of any fees.

We are fully prepared to divulge to you in confidence, the name of our Clients, and if you would like to consider the matter further, we would be grateful if you could telephone or write to us at your earliest possible opportunity.

We look forward to hearing from you.

Yours faithfully,  
p.p. MARTIN BARBER & PARTNERS

*L.K. Bruce*

L.K. BRUCE



*Ask Alm*

DATE: 30 September 1969

SUBJECT: Cross Product Line Memory Group

TO: Engineering Committee  
Operations Committee

FROM: Bob Hamel/Joe St. Amour

We propose that DEC establish a Cross Product Line Memory Group reporting to the Special Projects Cost Center.

Information on benefits and savings is covered in Bob Hamel's memo of 26 August 1969 to the Engineering Committee. (Potential savings of greater than one million dollars per year after taxes and expenses.) The Engineering Committee basically agreed with the proposal but requested a plan that defined products beyond the next six months. Pages A, B, and C which are attached cover this plan.

A budget for this group is also attached, and it is suggested that transfer take place at the end of Quarter One. Total budget for the final three Quarters of 1970 is \$364K and for 1971 is \$673K. Material for prototypes is a significant part of budgeted cost. Actual Cost Center labor and overhead will be \$166K for 1970 and \$259K for 1971. (Equitable cost distribution would occur if prototypes were charged directly to Product Line while labor and overhead portions were shared.)

The budget is based on the assumption that money already planned for memory development is available to this group and that the development of a standard memory system will reduce development costs as well as product costs.

It is also assumed that people already working on the standard memory system will be given the opportunity to transfer into this group. In addition to transferred people, it is planned that some new Engineers and Technicians will be hired.

In addition, present capital equipment should be transferred. For this reason, the FY'1970 budget does not include capital equipment.

/gp



# DEVELOPMENT PLAN SCHEDULE

RESPONSIBILITY	TASK	1970 FISCAL				1971 FISCAL				1972		Task
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	
Engr. Tech. New to DEC to be hired	4K-12 Bit R/R for PDP-8		S		▲							IA
	4K-12 Bit R/R for PDP-12		S		▲	F						
	Gen. req. for mod. prod. line		S		▲							
	4K-18 Bit R/R for PDP-15					S			▲	F		IB
Engr. Tech. within DEC new to memories	4K-18 Bit R/R for PDP-15	S		▲	F							IIA
	4K-18 Bit R/O for PDP-15						S		▲	F		IIB <sub>2</sub>
	64K-37 Bit R/R for PDP-10			S			▲	F				IIB <sub>1</sub>
Engr: P. Durant Tech: D. Manion Tech: [redacted] DiGeralamo	4K-16 Bit R/R for PDP-11		▲	F								IIIA <sub>1</sub>
	1K-12 Bit R/O for PDP-8		S		▲	F						IIIA <sub>2</sub>
	1K-16 Bit R/O for PDP-11		S		▲	F						
	1K-16 Bit R/O for PDP-11					S		▲	F			IIIB
	4K-16 Bit R/R for PDP-11					S		▲	F			
Engr: Pat Sullivan Tech: T. Bahalo Tech: W.	16K-37 Bit R/R for PDP-10		▲	F								IVA
	Advance Dev.			S		F						IVB <sub>1</sub>
	16K-37 Bit R/R for PDP-10					S		▲	F			IVB <sub>2</sub>
Engr. Tech. (to be hired)	Product Support		S									V

▲ - Release to build.



# MAIN MEMORY REQUIREMENTS

PRODUCT LINE	PRESENT			IMMEDIATE FUTURE			*FUTURE		
	SIZE	TYPE	TC	PROD. NEED	SIZE	TYPE	TC	PROD. NEED	SIZE
DP-8					4K-12B 1K-12B	RR RO	1.5us 1.0us	(4th Q 70) (4th Q 70)	
DP-12					4K-12B	RR	1.5us	(4th Q 70)	
DP-11	4K-16B	RR	1.2us	(2nd Q 70)	1K-16B	RO	1.0us	(3rd Q 70)	1K-16B RO 4K-16B RR
DP-15					4K-18B	RR	SLOW	(3rd Q 70)	4K-18B RR 4K-18B RO 32K-18B RR
DP-10	16K-37B	RR	1.0us	(3rd Q 70)	64K-37B	RR	1.8us	?	16K-37B RR

\* To increase performance consider a longer word length.



197019711972

	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
<u>Task I</u> A		19.6K	26.4K	30.1K	22.8K				
B						19.8K	24.9K	28.7K	24.1K
<u>Task II</u> A	22.3K	30.6K	16.5K						
B <sub>1</sub>				41.6K	70.8K	87.4K	55.2K		
B <sub>2</sub>							14.9K	38.7K	29.2K
<u>Task III</u>									
A <sub>1</sub>	41.0K	23.5K							
A <sub>2</sub>		14.7K	33.8K	35.2K	28.6K				
B						18.1K	27.3K	29.4K	23.7K
<u>Task IV</u> A	86.0K	26.5K							
B <sub>1</sub>			18.0K	25.5K	21.5K				
B <sub>2</sub>						33.6K	38.3K	49.1K	43.2K
<u>Task V</u> A			8.0K	14.0K	16.0K	16.0K	16.0K	16.0K	16.0K
TOTAL	149.3K	114.9K	102.7K	146.4K	159.7K	174.9K	176.6K	161.9K	136.2K
Central Group									
Support Groups		51.3K	55.7K	59.3K	62.6K	63.9K	65.4K	66.9K	
Prototype Hardware		36.8K	19.4K	34.4K	36.7K	42.2K	49.6K	37.2K	
		26.8K	27.6K	52.7K	60.4K	68.8K	61.6K	57.8K	



**DIGITAL EQUIPMENT CORPORATION**  
**BUDGET WORKSHEET FOR COST CENTER NO.**

Prepared by \_\_\_\_\_

Approved by \_\_\_\_\_

Date 9/19/69

Account Number	Activity Code	R.S.	Account Name	Fiscal Year 70		Fiscal Year 70	
				First Quarter	Second Quarter	Third Quarter	Fourth Quarter
7781		1	Project Material Direct		26.8K	27.6K	52.7K
7788		1	Mfg. Transfer - Direct				
7789		1	Material Requisitioned Dir.				
7784		1	Project Labor Direct				
7701		2	Base Labor (A)		25.2K	28.4K	30.8K
7701		2					
7701		2					
7702		3	Overhead Labor (B)		12.3K	13.1K	13.7K
7711			Holiday and Vacation (Budgeted for in A & B above)				
7753		3	Agency Personnel				
7703		4	Overtime Premium		3.2K	3.2K	3.5K
7704		4	Personal Allowance		.2K	.2K	.2K
7705		4	Sick Pay		.4K	.4K	.4K
7715		4	Fringe Benefits (10% A & B)		3.8K	4.2K	4.5K
7725		5	Occupancy Charge (27¢ Sq. Ft./Mo.)		1.6K	1.6K	1.6K
7726		6	Stationery Misc.		.5K	.5K	.5K
7728		6	Production Materials		1.0K	1.0K	1.0K
7729		6	Materials Requisitioned				
7740		7	Airlines		.7K	.7K	.7K
7741		7	Auto Rentals		.1K	.1K	.1K
7742		7	Lodging		.2K	.2K	.2K
7727		8	Equipment Leased				
7731		8	Repairs & Maintenance				
7733		8	Depreciation				
7752		8	Dues & Subscriptions		.1K	.1K	.1K
7758		8	Tel & Tel		1.0K	1.0K	1.0K
7759		8	Tuition Assistance		1.0K	1.0K	1.0K
Total					78.1K	83.3K	112.0K
Cost							
Center							



**DIGITAL EQUIPMENT CORPORATION**  
**BUDGET WORKSHEET FOR COST CENTER NO.**

Prepared by \_\_\_\_\_

Approved by \_\_\_\_\_

Date 9/14/79

Account Number	Activity Code	R.S.	Account Name	Fiscal Year 71		Fiscal Year 71	
				First Quarter	Second Quarter	Third Quarter	Fourth Quarter
7781		1	Project Material Direct	60.4K	65.8K	61.6K	57.8K
7788		1	Mfg. Transfer - Direct				
7789		1	Material Requisitioned Dir.				
7784		1	Project Labor Direct				
7701		2	Base Labor (A)	31.7K	32.6K	33.5K	34.6K
7701		2					
7701		2					
7702		3	Overhead Labor (B)	14.9K	15.1K	15.3K	15.5K
7711			Holiday and Vacation (Budgeted for in A & B above)				
7753		3	Agency Personnel				
7703		4	Overtime Premium	3.7K	3.8K	3.9K	4.0K
7704		4	Personal Allowance	.3K	.3K	.3K	.3K
7705		4	Sick Pay	.5K	.5K	.5K	.5K
7715		4	Fringe Benefits (10% A & B)	4.7K	4.8K	4.9K	5.0K
7725		5	Occupancy Charge (27¢ Sq. Ft./Mo.)	1.2K	1.7K	1.7K	1.2K
7726		6	Stationery Misc.	.5K	.5K	.5K	.5K
7728		6	Production Materials	1.0K	1.0K	1.0K	1.0K
7729		6	Materials Requisitioned				
7740		7	Airlines	.7K	.7K	.7K	.7K
7741		7	Auto Rentals	.1K	.1K	.1K	.1K
7742		7	Lodging	.2K	.2K	.2K	.2K
7727		8	Equipment Leased				
7731		8	Repairs & Maintenance				
7733		8	Depreciation				
7752		8	Dues & Subscriptions	.1K	.1K	.1K	.1K
7758		8	Tel & Tel	1.2K	1.2K	1.2K	1.2K
7759		8	Tuition Assistance	1.3K	1.3K	1.5K	1.5K
Total				123.0K	132.7K	127.0K	124.7K
Cost							
Center							



new ☒  
change ☐

Product Code

Market

Code

Discrete Project Code

(To be assigned by accounting)

Project Title: CROSS PRODUCT LINE MEMORY GROUP Date: .....

Project Manager: ..... Supervisor: .....

Complete Description of Project: .....

.....

.....

Estimated Completion Date: ..... Estimated Total \$'s: 513.3K \*

Act. Code	Cost Ctr.	Expense Centers	Fiscal Quarters			
			FY <u>70</u> Qtr. <u>1</u>	FY <u>70</u> Qtr. <u>2</u>	FY <u>70</u> Qtr. <u>3</u>	FY <u>70</u> Qtr. <u>4</u>
E	324	Model Shop G. Gerelds	11.6K	11.8K	5.7K	2.2K
D	325	Drafting R. Melanson	5.5K	5.0K	5.0K	15.5K
D	330	Mechanical Eng. L. Prentice	6.0K	3.0K	1.0K	3.0K
D	339	Process Eng. T. Stockebrand				
P	360	Systems Programming L. Portner				
	360	Diagnostic Programming L. Portner		2.0K	2.7K	8.2K
D	374	Production Eng. R. Puffer	6.0K	9.0K	4.0K	4.5K
D	386	Special Projects J. St. Amour	116.2K	78.1K	83.3K	112.0K
N	551	Hardware Manuals J. Bellantoni	4.0K	6.0K	1.0K	1.0K
Y	552	Software Manuals G. Arnold				
E		Product Line Eng.				
		Advertising & Promotion G. D'Annunzio				
		Product Line Marketing				
		TOTAL EXPENSE	149.3K	114.9K	102.7K	146.4K

## \* Discrete Project Costs Available on Request.

If this is a new project, have Product Line Manager sign below and submit to Accounting for assignment of a project number. The appropriate Vice President should sign for any projects covered by more than one Product Line.

Approved by: ..... Date: .....

Authorization of this project does not constitute budget approval. Each project must operate within and under the control of their appropriate Product Line and its budget.



new



change



Product Code

Market

Code

Discrete Project Code

(To be assigned by accounting)

Project Title: CROSS PRODUCT LINE MEMORY GROUP Date: .....

Project Manager: ..... Supervisor: .....

Complete Description of Project: .....

Estimated Completion Date: ..... Estimated Total \$'s: 673.1K.\* .....

Act. Code	Cost Ctr.	Expense Centers	Fiscal Quarters			
			FY <u>71</u> Qtr. <u>1</u>	FY <u>71</u> Qtr. <u>2</u>	FY <u>71</u> Qtr. <u>3</u>	FY <u>71</u> Qtr. <u>4</u>
E	324	Model Shop G. Gerelds	9.0K	14.5K	10.6K	4.8K
D	325	Drafting R. Melanson	7.5K	4.5K	8.0K	6.4K
D	330	Mechanical Eng. L. Prentice	7.0K	7.2K	7.0K	6.0K
D	339	Process Eng. T. Stockebrand				
P	360	Systems Programming L. Portner				
	360	Diagnostic Programming L. Portner	3.2K	4.0K	7.0K	7.0K
D	374	Production Eng. R. Puffer	9.0K	8.0K	12.0K	7.5K
D	386	Special Projects J. St. Amour	123.0K	132.7K	127.0K	124.7K
N	551	Hardware Manuals J. Bellantoni	1.0K	4.0K	5.0K	5.5K
Y	552	Software Manuals G. Arnold				
E		Product Line Eng.				
T	287	Advertising & Promotion G. D'Annunzio				
A		Product Line Marketing				
TOTAL EXPENSE			159.7K	174.9K	176.6K	161.9K

## \* Discrete Project Costs Available on Request.

If this is a new project, have Product Line Manager sign below and submit to Accounting for assignment of a project number. The appropriate Vice President should sign for any projects shared by more than one Product Line.

Approved by: ..... Date: .....

Authorization of this project does not constitute budget approval. Each project must operate within and under the control of their appropriate Product Line and its budget.



digital

INTEROFFICE MEMORANDUM

DATE: October 2, 1969

*Send to*

SUBJECT: Accounting Policies

TO: Operations Committee

FROM: R. F. Dill

Attached is a statement of Accounting Policy requested by Bill Congleton of ARD.

egs



## DIGITAL EQUIPMENT CORPORATION MAJOR ACCOUNTING POLICIES AND PROCEDURES

Digital Equipment Corporation elected the accrual method of accounting. The Corporation has a fiscal year which is a 52, 53 week year with 13 week quarters, each quarter having four weeks, four weeks and five weeks as its accounting period.

### STATEMENTS:

The consolidated financial statements includes the accounts of the parent company and all subsidiaries. The fiscal year of the foreign subsidiaries end as of April 30 and the parent and Digital Equipment de Puerto Rico and Digital International are on the Saturday nearest June 30th. Internal consolidated management reports use current month for both parent and subsidiary. All intercompany transactions are eliminated in consolidation.

### INVENTORIES:

All inventories are stated at the lower of cost (actual or standard) or market on a FIFO basis. Significant actual cost variances from standard for items so valued are charged to profit or loss.

### RESEARCH AND ENGINEERING EXPENSES:

Digital Equipment Corporation has elected to write off all Engineering costs as a period expense with no capitalization.

### MARKETING EXPENSES:

Marketing expenses are all written off as period costs as incurred with no capitalization.

### PROGRAMMING EXPENSES:

Programming expenses are all being written off as period costs in the same manner as Marketing and Engineering costs.

### DEPRECIATION:

Digital Equipment Corporation has elected to accelerate its writeoff of all capital assets in a manner which gives the maximum charge to operating profit and give the corporation maximum tax benefits. A sum of the years digit method is used for most manufacturing items with the straight line method being used for certain used assets where we are not allowed an election. On in-house computers we use the double declining balance method.



CAPITALIZATION POLICY:

Digital Equipment has elected a capitalization policy which states that equipment under \$250 in value will be written off as a period expense, anything in excess of \$250 will be capitalized along with the necessary transportation charges or set up costs which are necessary to get the asset operational.

LEASES:

In general Digital Equipment Corporation has chosen to purchase rather than lease equipment. Leasehold improvements are written off over the life of the lease.

RESERVES:

Monthly reserves are set up and maintained for inventory shrinkage or obsolescence, patent accruals and state and federal taxes. At year end the inventory shrinkage or obsolescence reserves are adjusted to the actual physical inventory. The reserves set up for patent accruals are usually expressed as a percentage of sales and are for general patent liabilities of the company. The patent reserves are expressed on a sliding scale basis with larger reserves set up on the first block of sales and lesser amounts on the next block of sales until it reaches a maximum point. This reserve varies from year to year depending upon the advice of counsel.

SALES:

Sales are recorded on the books of the company at the point the goods are delivered to the customer or his carrier. The majority of sales are F.O.B. Maynard, Massachusetts.

RECEIVABLES:

Receivables from customers relate to equipment sold and delivered and to services rendered. In general our sales terms are net 30 days from the date of billing.





## INTEROFFICE MEMORANDUM

DATE: September 28, 1969

SUBJECT: Proposal for Change in Westfield Board Shop Plan

TO: P. Kaufmann

FROM: D. Knoll

cc: K. Olsen  
Operations Committee  
Central Planning

The world has changed since we made our Westfield Board plan last April as follows:

1. We have a better handle on costs. Eyelet boards cost about \$1.60 per circuit and PTH boards cost about \$3.50 per circuit.
2. Due to this cost difference we convert to eyelet whenever possible. Half of our PTH requirements have now been converted to eyelet. Further significant conversion does not appear possible.
3. Instead of decreasing as forecasted, single sided requirements have risen due to getting a better material control handle on boards for cables, power supplies, and sub-assemblies.
4. New products (11, 12, 15) are not 100% PTH as we had planned. They each still use some single sided and eyelet boards.
5. Our requirements have therefore shifted significantly from PTH toward single sided and eyelet.

	April 69 Forecast:			September 69 Forecast:	
	April 69	Sept. 69	June 70	Sept. 69	June 70
Etch	142K	125	130	180	175
Eyelet	10K	10	20	45	65
PTH	45K	75	150	45*	50
	197K	210	300	270	290

\* includes 20K undefined limited releases

6. The requirement shift above means that we should first build a silk screen/eyelet facility and then the PTH facility in Westfield.



September 19, 1964

Based on the above factors, I propose the following:

1. Proceed with the engineering and quoting on the existing PTH plan for about 3 weeks until it is complete.
2. Proceed with the waste treatment plant (\$150K), in particular the outside portion. We will need this plant for any PTH facility we install and portions of it, including all of the outside portion, for any etch/eyelet facility. With this work proceeding, we in essence slip day for day from the original plan. Without this work, we put an immediate 5 month slip in the schedule since we must wait for spring to start again.
3. Proceed to engineer and propose the following:
  - A. An etch/eyelet facility (self-contained) for installation at Westfield. Emphasis will be on efficiency. The facility will include both automatic and manual silk screening capabilities, and may include an automatic gold plating line. Capacity will be 200K circuit sides per month. Proposal by December 31.
  - B. A PTH facility including automatic copper, gold and solder plating lines. I think we can have proposals by December 31. I will have a definite schedule for this proposal by November 1.
4. Buy equipment for either facility as soon as it is known that it is the same for either the manual or automatic plating alternatives. Examples probably include one drill, punch presses, dies, etchers, lab equipment, photo processing equipment, carbon treat tanks, scrubbers, wet hone, bulk chemical storage tanks, demineralizer, automatic taping equipment, etc.
5. Proceed with leasehold improvements when possible; when they are shown to be the same for both alternatives. Examples might include area ventilation, maybe air make up, the low pressure air system, etc.
6. Hold the pouring of the depressed plating floor and the immediately adjacent area planned for the board facility. This amounts to about 40,000 sq.ft. Proceed to put the floor in the waste treatment and bulk storage areas.