Box 3 Memos from Olsen 2 of 6 102737384
Folder 2

dec INTEROFFICE MEMORANDUM

DATE December 31, 1962

SUBJECT

TO Henry Crouse

FROM Kenneth H. Olsen

I got a little envelope of literature from Chicago Miniature Lamp Works Chicago, Illinois which describes their lamps. There is one which looks particularly interesting for photoelectric tape reader. As we develop a more inexpensive computer, I think it will be important for us to make our own photoelectric tape reader. I would like to have you order a sample of each of the three sizes of this lamp bulb. The Model numbers of these are CM 8-55, CM 8-40 and CM 8-31.

I would like to have you order a sample of each of these and then get the price schedule on them in addition.

Their address is: Chicago Miniature Lamp Works
4433 Ravenswood Avenue
Chicago 40, Illinois

Kenneth H. Olsen

cc: Bob Savell

dec INTEROFFICE MEMORANDUM

DATE December 17, 1962

SUBJECT

TO Henry Crouse

FROM Kenneth H. Olsen

cc: Dick Best

Because we are good customers of the transistor manufacturers, I believe that we have the most up to date manuals on transistors. However, we are quite weak in vacuum tube manuals and I think it would be a good idea to see what is available from each of the manufacturers. Judy Ebner is trying to get the General Electric Manuals on cathode ray tubes but we should also get them for all of the industrial tubes and the cathode ray tubes. We don't use these very often but when we do we should have all the information. We have the small R.C.A. tube handbooks but I wonder if they don't have something better. Whenever we make an inquiry about a special tube they have large 8½ by 11 booklets. These may only be available if you ask for specific tubes, but they have better handbooks that contain all of these - also we ought to have those.

INTEROFFICE MEMORANDUM

DATE December 17, 1962

SUBJECT

TO Bob Lassen

FROM Kenneth H. Olsen

I think everyone should be congratulated on doing an exceedingly fine job on the Christmas Party this year. So many people came to me afterward and congratulated me on how well it had been done. I tried to explain to them that I wasn't even in town so all the credit goes to others. Be sure and tell everyone involved that they did a very fine job.

Here are a few comments on things which we may do better next year. I think that we should have a record player playing Christmas Carols because I think it would add to the whole atmosphere. Periodically we could make a break in this and play Christmas Carols with the computer. We should have had more interesting displays on the computer, I am not sure why they were not running.

For the kids that didn't drink coffee, there was a need for something more refreshing than eggnog. Maybe we should serve ginger ale, or at least have a water cooler available.

In order to avoid the overflowing G. I. cans, we might distribute our laundry carts in the area to collect the refuse. If we decorated them, they would look quite passable.

The dispensing of ice cream is always slow. I am not sure that I have any suggestions on how to do this but we ought to see what we can figure out.

Kenneth H. Olsen

INTEROFFICE MEMORANDUM

DATE December 17, 1962

SUBJECT X-Ray Safety

TO Bob Savell

FROM Kenneth H. Olsen

Here are two references on medical aspects of X-Ray which you might be interested in obtaining.

The first one is titled "Medical X-Ray Protection up to Two Million Volts" - National Bureau of Standards Handbook H-41.

The second one is "Safety Code for Industrial Use of X-Rays" - American Standards Association, ASA Code Z 54.1-1946.

Kenneth H. Olsen

dec INTEROFFICE MEMORANDUM

DATE December 11, 1962

SUBJECT

TO Arthur Hall

FROM Kenneth H. Olsen

I promised Foxboro that we would go ahead and build their first computer and deliver it in February as promised even though we have not had a purchase order from them. This will then allow us to casually work out the agreements without the pressure of time. They would give us a letter saying that they are going to eventually give us a purchase order, but I told them that this would not be necessary and that we could continue with this project.

If there is some reason why we cannot make this date, please let me know because I have assured them that we would.

Kenneth H. Olsen

cc: Dick Mills

Gordon Bell

INTEROFFICE MEMORANDUM

DATE December 11, 1962

SUBJECT

TO Nick Mazzarese

FROM Kenneth H. Olsen

I have sent you a copy of a letter I got from John Ward at M.I.T. The Electronic Systems Laboratory expects to get money late in January to purchase a multiplier to install in their PDP-1. I told John that if they are reasonably sure they can get their money, we would be willing to give them a multiplier on trial. If they like it, they can buy it. This is not an unusual way of doing business. This letter is the result of this offer and I think we should go ahead and install the multiplier for them.

Kenneth H. Olsen

dec INTEROFFICE MEMORANDUM

DATE December 6, 1962

SUBJECT

TO Dick Best
Win Hindle

FROM Kenneth H. Olsen

I would like to see us make a list of products that we are working on so that we can look at it in one glance to get a picture of all the things that we are doing. This might be broken into three headings: products which we develop, products we are developing and products we might work on and vertically they should probably be broken into groups such as magnetic tape, drums, display, A to D, D to A and In-Out equipment. I think it would be good to have this chart and then we could all look at it and agree as to what we are working on.

Kenneth H. Olsen

dec INTEROFFICE MEMORANDUM

DATE December 3, 1962

SUBJECT

TO Stan Olsen

FROM Kenneth H. Olsen

The Inquiry Report which we get weekly now is very good. It is one of the most interesting documents we receive. I would, however, suggest that you also add to this report the total orders that have come in the previous week, the total for the month and the total for the previous month. I know this already goes to our weekly report but not many people see that, and this information would be very useful.

This week when things get relaxed in the Sales Department, I would like to see somebody generate a list of all the European inquiries that we have had in the last several months and if we plan a trip to Europe, we can pick out those that are useful to visit. Sweden should be loaded with American dollars now because of the automobiles and the cash registers they sell there. I would guess that they would be a tremendous market for computers.

Kenneth H. Olsen

cc: Gerry Haynes

INTEROFFICE MEMORANDUM

DATE November 19, 1962

SUBJECT Cold Solder Joints On Modules

TO Maynard Sandler
Cy Kendrick
Jack Smith
Gloria Porrazzo
Bob Hughes

FROM Kenneth H. Olsen

Ben Gurley just came back from his trip to Paris and he has some rather disturbing news to report. Two weeks ago we had a call from ITT saying that there were mysterious intermittant troubles in the Paris machine which they had been working on for months and hadn't been able to track down. The machine never did work more than twenty-four hours at a time and our future sales of machines were dependent on making this one work satisfactorily. That same day we put Ben Gurley on the plane to Paris and the next day sent Al Blumenthal along so that they could fix the troubles and get it on the air.

The most significant problem they found were cold solder joints on the lugs which are used to solder transistors and some resistors. These units were made some time ago and I think at that time we were using very little heat on the lugs for some reason or other and if the transistor was held in mechanically, we felt that it was satisfactory. I hope that since then we have insisted on smooth flowing solder joints, on all joints, particularly these on the lugs. Tom Stockebrand who has just joined us today from Lincoln Laboratory also mentioned the fact that the only trouble they have had with DEC Modules were cold solder joints in the same places.

I am sending this memo on to you to make sure that you keep a close eye on these solder joints so that we never have this problem again.

Kenneth H. Olsen

dec INTEROFFICE MEMORANDUM

DATE November 16, 1962

SUBJECT

TO Roland Boisvert

FROM Kenneth H. Olsen

When you have developed enough confidence in the LINC Tape Unit, I think you should immediately order another head so that we can complete the present tape unit. You might consider ordering three more so that we can have another complete set. As soon as we get the complete motors, we ought to decide what speed we want to use.

These Borg motors come in three sizes. They are made out of the same parts but there are just more laminations for the bigger motor. We will have to decide which size motor we are going to use. We have two of the bigger size motors coming early in December. They wind all their motors to order and this is why it takes so long. However, they do stock gear sets and so, during the trade show, I asked them to send the gear trains for the faster motor right away and we can put them into the motors we have now and decide what speed we want. It might be a good idea for you to remind these people so they will get it done and we can decide on the speed of the motors, then we can order our final motors right away. Because they wind them to order, probably they will not delay it significantly to order a 75 volt motor or whatever voltage we decide is helpful.

Kenneth H. Olsen

dec INTEROFFICE MEMORANDUM

DATE November 16, 1962

SUBJECT

TO Bob Beckman

FROM Kenneth H. Olsen

Some fellows from M.I.T. told me that they had visitors from Minneapolis Honeywell who said they had a PDP-1 Computer but didn't have any programs. People are playing Space War and are having a good time at it, but they are looking for some programs which are a little more useful. This was not given in a spirit of criticism of DEC but I just wanted to ask you to be sure that they did get all the programs that we do have available.

Kenneth H. Olsen

dec INTEROFFICE MEMORANDUM

DATE November 16, 1962

SUBJECT

TO Tom Stockebrand

FROM Kenneth H. Olsen

John Ward of the Systems Group at M.I.T. has several interesting projects which I would like to have you look into. We can probably get a lot out of working with them on the projects and I think we can be quite helpful to them.

They are interested in the Conic line drawing scope that Ivan Sutherland is proposing but they have a competitive system which they have started working on which they feel is even more practical. This uses pulse rate analog. They also want to add an oscilloscope to the 709 and have it so that it can be added to the 7090. This is part of the computerated design program which is supported by the Air Force.

Mark Connelly has been for years working on analog digital hybrid systems for aircraft simulation. We have a copy of a report which he wrote some time ago describing this. This got wide distribution and has made our computer rather popular in the industry. We sold one to Minneapolis Honeywell because of his work and several manufacturers have included our computer in their bids because of Mark's work. Mark is adding multiply and divide to our computer at M.I.T., and would like to expand the memory. He is also going to add an analog computer in the input which he will get from Philbrick Associates.

A good part of this system will be pulse rate analog units which they have designed. I have offered to package these units for them inexpensively because we have learned quite a bit. I would like to have you learn as much as you can about their system so that we can be helpful and that we can find out whether we should do extensive work in this or not.

Kenneth H. Olsen

INTEROFFICE MEMORANDUM

DATE November 16, 1962

SUBJECT

TO Tom Stockebrand

FROM Kenneth H. Olsen

Sometime we might consider making a version of the TX 2 tape unit. One interesting angle would be to run it at approximately constant speed using DC motors. For constant speed you would want the sum of the back emf's of both motors to be equal. You cannot simply put these series across a fixed voltage because one wants to be driven and the others to be retarded. However, I think that with a simple transistor system one could subtract the voltage across the retarding motor from some fixed voltage and apply that to the driving motor. I think then you would have a fixed speed system. They are now making DC motors which appear to be quite simple and reliable. They are made by Lamb Company. This is the company that seems to make them for all the conventional tape units such as made by Potter, Ampex and CDC.

Kenneth H. Olsen

dec INTEROFFICE MEMORANDUM

DATE November 15, 1962

SUBJECT

TO Henry Crouse

FROM Kenneth H. Olsen

There is a small operational amplifier which is newly available which is called Nexus. I am not sure how this is spelled but if you can find any information on this, I would like to have it.

Kenneth H. Olsen

dec INTEROFFICE MEMORANDUM

DATE November 13, 1962

SUBJECT Obsolete Inventory

TO Maynard Sandler
John Trebendis
Jim Myers
George O'Dea

FROM Kenneth H. Olsen

When we decided to set up the obsolete inventory it was my understanding that we were going to keep the same care of the obsolete inventory that we keep of the finished goods inventory. This is very far from the case right now and I suggest that we set about to keep the things in the same order that we do our regular inventory. The parts should be kept in bins and all of the same parts should be put in one bin and the bins should be grouped by class.

I further suggest that modules which are obsoleted be put in a new stock room which will be kept by Jim Myers. If Jim has control of these obsolete finished good units, he then might be able to convince our own people to use the obsolete items.

I further suggest that all modules that are put into obsolete stock should be wrapped in their final shipping cartons. These units will be in stock for a long time and are more likely to become dirty. They will also receive better respect if they are wrapped in final packaging.

If there is something wrong with these ideas, please let me know.

Kenneth H. Olsen

INTEROFFICE MEMORANDUM

DATE November 12, 1962

SUBJECT

TO Jack Atwood

FROM Kenneth H. Olsen

Now that we are getting more and more interested in the process control field, I think that we should consider having an exhibit at the Chemical Engineers Show. Will you look up the details of this and put it on the list of shows which we consider for the Trade Show Schedule.

Kenneth H. Olsen

cc: Gordon Bell
Stan Olsen
Harlan Anderson

dec INTEROFFICE MEMORANDUM

DATE November 12, 1962

SUBJECT Test Of Returned Modules

TO Jim Cudmore
Bob Hughes
Dick Best

FROM Kenneth H. Olsen

I am surprised to see how many of our returned modules have no apparent trouble and pass our own tests. I suspect that many of these were never bad but I am terrified by the thought that the customer changed the module in his system and the new one worked, and he sent the old one back to us. This would mean that either the customer is using them wrong or that we are not testing them completely. I would suggest that the Quality Control Department check into this quite thoroughly so that they can find out what the situation is. We have large enough samples each week that we could check into one or two weeks and find out just what has happened in the field.

Kenneth H. Olsen

dec INTEROFFICE MEMORANDUM

DATE November 12, 1962

SUBJECT

TO Stan Olsen

FROM Kenneth H. Olsen

I suggest that we have a reasonably good stock of modules in all our Field Offices so that they can replace defective units instantly and so that they can put on decent sized demonstrations.

We should consider getting several good looking mud cabinets, painting them blue and having one power supply and two laboratory module mounting panels in them. These are the sort of things we can loan out to customers or even schools once in a while.

I think we can now afford to be particularly generous in giving away fireworks kits to schools. The sales people ought to be sensitive as to which schools are best. Those schools which have already purchased some of our equipment, we may give them a mounting panel and another nine modules.

We ought to do this quickly while we have the production capability and while our monthly statements are looking unusually good.

Kenneth H. Olsen

cc: Maynard Sandler

dec INTEROFFICE MEMORANDUM

DATE October 30, 1962

SUBJECT

TO Gordon Bell

FROM Kenneth H. Olsen

Enclosed is a photocopy of a letter from Jerry Cox at Central Institute for the Deaf. They have now put impossible restrictions on the computer they need and they are either going to end up with no computer at all or they are going to have to back down. We want to stay in there pitching so that they'll back down in those areas which puts us in the running.

There is also, I would guess, a good liklihood that SDS will fall flat on their faces with some of the things they have promised. We want to be there to catch the order if they drop out.

Will you generate the comparison between 910 and the PDP-1 and give a copy of it to me and to Stan. Before you answer this letter to Jerry Cox, please let me see it because it is a very touchy thing to make comments about the competition even though they may be all in your favor.

Kenneth H. Olsen

cc: Stan Olsen

dec INTEROFFICE MEMORANDUM

DATE October 30, 1962

SUBJECT Encouraging ITT ADX Sales

TO Nick Mazzarese

FROM Kenneth H. Olsen

I got the impression from ITT that if our price was cut somewhat they would be discouraged from making their own computer and more sales to them might result.

We have considered the possibility of applying the PDP-4 quantity discount to PDP-1. This would lower the cost to them significantly.

We are also actually considering making an 8K or 16K Memory which would be significantly less in cost. This is the one item that hurts them the most. They are now getting bids from other companies to make identical memories for half the price. I think we should encourage this memory with all haste and maybe even gamble on offering it before we are completely sure of it. If this memory goes slower than 5 microseconds the machine would then be a little slower but, in general, this would not hurt ITT. The best thing they could have would be a less expensive, slightly slower PDP-1 because of the tremendous investment they have in PDP-1's.

Ben Gurley is working with Bolt, Beranek and Newman on a high density, high capacity drum which they plan to buy from Univac. If we offered this to ITT as part of the ADX System, this might help us in the sales picture. Their experience with drum and disc I don't think has been too good.

Gordon Bell would like to make a line unit all in one plug-in unit. If we did this we might really be competitive with them and we might be in a position to make the whole works.

Kenneth H. Olsen

cc: Ben Gurley

dec INTEROFFICE MEMORANDUM

DATE October 30, 1962

SUBJECT PDP-4 For Our Module Testing

TO Gordon Bell

FROM Kenneth H. Olsen

Will you initiate the red tape necessary to order a PDP-4 for our automatic module testing.

I expect that in a few months we will be overwhelmed with module and computer orders again. We have increased our productivity in many ways and we can turn out units very effectively but module testing is still a severe bottle neck. We have hired a fellow named Ken Wakean who will join us early in November to do Production Engineering. He is a relatively senior man and supposedly quite capable in this general area. This will be his first task and I would like to have a computer available to him immediately so that he can get all our testing on a computer.

He has no experience with computers and so learning to use it will take a little time, but I think that will be relatively easy. He probably will need some help in programming. The most important thing is I would like to have the computer underway before he gets here.

Kenneth H. Olsen

cc: Jack Smith
Dick Best
Bob Hughes
Harlan Anderson

dec INTEROFFICE MEMORANDUM

DATE October 30, 1962

SUBJECT

TO Klaus Doering

FROM Kenneth H. Olsen

The Inspection Criteria Drawing for taper pins looks very good. This is a thing we should write up for all processes which are critical. I think that this thing should be made part of our Quality Control Manual. This is the sort of thing which is not only necessary for our own use, but is very impressive to potential customers.

Kenneth H. Olsen

dec INTEROFFICE MEMORANDUM

DATE October 30, 1962

SUBJECT

TO Ben Gurley

FROM Kenneth H. Olsen

During the ISA Show Andy received a call from John Mc Carthy at Stanford University saying that he was interested in a PDP-1. I called him back the next day and talked with him about the general problem. He is very interested in a PDP-1 because he has his teaching programs already written with that computer. He didn't have the money initially but he does feel he can get it. I told him I thought we could give him a 10% discount but he was a little disappointed with how small this discount was. I think it would be important for us to get a PDP-1 out there and so I suggest that you follow up on this and feel him out as to how much discount we would have to give him in order to sell the machine there. I think we might go as high as 20 or 25% discount.

His telephone number is Area Code 415, DA 1--2300, Extension 2312.

Kenneth H. Olsen

cc: Harlan Anderson

dec INTEROFFICE MEMORANDUM

DATE October 26, 1962

SUBJECT Purchase Requisitions for System Material

TO Dick Best
Ben Gurley
Nick Mazzarese

FROM Kenneth H. Olsen

A number of Purchase Requisitions which are very large and very imposing which I am asked to approve are often components for systems for which we have orders. Waiting for my approval may sometimes delay these and I am in no position to know whether they are purchases wise or not.

Those items which are Purchase Requisitions for which we have orders, I suggest that we have approval from the supervisor directly above the man who fills out the requisition. Dick Best could approve all those for the systems group, Ben for all those in his group and Nick for all those in his group.

Kenneth H. Olsen

INTEROFFICE MEMORANDUM

DATE October 26, 1962

SUBJECT

TO Roger Melanson
Maynard Sandler
Bob Hughes

FROM Kenneth H. Olsen

At the ISA Trade Show in New York, I had a chance to look at some of our modules and was rather disappointed to look at our new Pulse Transformers. Some layouts were such that the leads coming from some of the transformers appeared to be shorted to each other. The nature of the computer business is such that if there is ever a possibility of a malfunction or short, it will always happen. If we design them so that they appear to be shorted, we are without a doubt going to have trouble.

I would like to have the Drafting Room lay out the unit so that there is no need for long leads on the top surface of the etched board. I would like to have the Production Department install the transformers so that the leads cannot touch each other and I would like to have the Quality Control Department never let anything out that looks like it can short.

I was standing by one of the ADX Systems after they had found a trouble and looking over the module that caused the trouble I could see that it was one with two trim pots which were side by side and whose leads came out toward each other in such a way that they touched each other. The contact between these pots might have been poor during test but intermittantly they made contact and probably caused the trouble.

It is probably good for the Quality Control Department to look for pits and handles and marks on etched boards but above all they should look for wires that touch each other.

Kenneth H. Olsen

INTEROFFICE MEMORANDUM

DATE October 26, 1962

SUBJECT Transistor Inventory

TO George O'Dea
Dick Best
Maynard Sandler
Bob Hughes
Henry Crouse
Jon Fadiman

FROM Kenneth H. Olsen

When we were small we made many decisions from the top of our hat and on the average we did very well. We are still on the average doing well but some of these top of the hat decisions when they don't go in our favor are large enough to cause concern.

One of these decisions which seemed like a good idea at the time was the buying of the remainder of Philco's production of 2N674 transistors. The production of these units was going to be stopped by Philco and we encouraged them to run the line a short time longer and we bought all the remains so that we would have a stock for future memory testers. The results however were rather serious because of the number of dollars involved. It totalled to $20,000 which is a significant part of the profit expected from the Special Systems Group.

If our memory testing business was renegotiated (which is not impossible) they may decide that all we are allowed is 2% profit. If we sell a million dollars worth of testers all we would have to show in profit is $20,000 worth of transistors in the stock.

We are now taking these transistors out of stock and putting them into the obsolete stock room so that they will not show on our profit statement. This is particularly shocking at this time because in addition to these transistors we are taking out another $50,000 worth of units which have been obsoleted. After only three months of business we are now obsoleting $70,000 worth of transistors. There are few companies our size who make that much in profit in three months.

Because of the seriousness of this transistor inventory problem and because there are so many people involved in the chain, I am now asking that George O'Dea check the status of the inventory of each transistor type every week and that he post a record of the status. This way we will have to remove from stock obsolete transistors immediately and George will then get involved in discussion of new orders and new transistors that will obsolete stock.

In addition I would like to have George make a record of all those transistors which are now in obsolete stock room and then he will each week distribute this list to the Engineering Department and encourage them to use these transistors in our new designs.

As we change designs we will obsolete part of our inventory. This is the cost of progress but we presently do not have the controls to minimize this obsolescence and we often underestimate the value of the units which we obsolete. A few hundred units may not seem significant but obsoleting $70,000 worth of transistors in three months is truly shocking. $70,000 was the capitol which started DEC.

Kenneth H. Olsen

INTEROFFICE MEMORANDUM

DATE October 26, 1962

SUBJECT Transistor Inventory

TO George O'Dea
Dick Best
Maynard Sandler
Bob Hughes
Henry Crouse
Jan Fadiman

FROM Kenneth H. Olsen

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In addition I would like to have George make a record of all these translators which are now in obsolete stock room and then he will each week distribute this list to the Engineering Department and encourage them to use these translators in our new designs.

As we change designs we will obsolete part of our inventory. This is the cost of progress but we presently do not have the controls to minimize this obsolescence and we often underestimate the value of the units which we obsolete. A few hundred units may not seem significant but obsoleting $70,000 worth of translators in three months is truly shocking. $70,000 was the capital which started DEC.

Kenneth H. Olsen

INTEROFFICE MEMORANDUM

DATE October 12, 1962

SUBJECT

TO Gordon Bell
Ben Gurley

FROM Kenneth H. Olsen

I met Roland Silver at the PGEC Meeting on Wednesday night and talked to him about his work at Mitre Corporation. They are making a computer of some old modules that they have left over from the Sage II System. I can't figure out why they want to make a computer but they are. I also asked him if we could sell them a computer and he said there is a good possibility and that he would like to talk to Ben about it. I think we should show the initiative on this.

I also talked to Norm Taylor. He said they have $25,000,000 worth of bids out now and some of them must come through. He is interested in developing a one console drafting machine which would need a small inexpensive computer. He is interested in the PDP-4 but he would need a six microsecond memory even though the rest of it could go slower. I told him I thought that we might get the memory to work at six microseconds even though the rest of the material works slower. I am not quite sure what this means but I am sure that we ought to encourage them along.

He also needs a drum. He figures it should have 20,000 bits per track and rotate at 1,800 rpm. I don't remember the numbers on our regular drum but we ought to look into it before we talk to them.

Kenneth H. Olsen

dec INTEROFFICE MEMORANDUM

DATE October 12, 1962

SUBJECT Signs for Building 5

TO Jack Atwood

FROM Kenneth H. Olsen

I discussed the proposal for signs with several people and they have the following suggestions:

Before we go ahead with the project we should have an estimate of the cost. Several people suggested that the sign on the shipping dock should be on the top of the small canopy because it would be more visible. Most people doubt that we will be able to get the Raytheon sign and so we ought to put our own on the opposite side of the loading dock and prune the tree a little bit.

Before we do anything we ought to make sure that Loren Prentice has the door changed. He is supposed to be buying a new door. You might encourage him to do this soon.

Kenneth H. Olsen

INTEROFFICE MEMORANDUM

DATE October 12, 1962

SUBJECT PGEC Meetings

TO Jack Atwood

FROM Kenneth H. Olsen

Here is a schedule of PGEC Meetings for the next few months.

November 14 - Thomas Stockebrand will talk on the TX 2 Bulk Storage Tape Unit

December 12 - Wes Clark will talk on the Linc Computer

January 16 - Professor Adams at M.I.T. will talk on his Nomograph Computer

We might be spending too much on the printing job we are doing now but for the next two announcements we may consider doing something extra like including photographs because we are particularly interested in these.

Thomas Stockebrand is someone that we expect to hire soon and it would be good to do a good job on him and we also may want to make these type tape units.

The Linc Computer is made with our modules and we would really like to show it off. Maybe we ought to have a picture of it on the announcement.

Kenneth H. Olsen

INTEROFFICE MEMORANDUM

DATE October 12, 1962

SUBJECT

TO Jack Atwood

FROM Kenneth H. Olsen

I went to the PGEC Show at Raytheon last night and had a chance to look over their new executive offices. Indeed it is a beautiful building. They have a number of pictures of their products mounted on the wall very much like we have but I think they have done it much more attractively. They have them cemented on masonite like the picture of M.I.T. is in my office where the edges of the print are folded around the back of the picture. Then, they have them stood off from the wall about one inch. The result is very attractive and I think is much better than we now have in our lobby. This might be a technique that we should use for our own lobby and also is probably the best way we could present a picture to American Research.

Kenneth H. Olsen

INTEROFFICE MEMORANDUM

DATE October 12, 1962

SUBJECT

TO Henry Crouse

FROM Kenneth H. Olsen

If possible I think it would be a good idea to obtain a large number of Allied Radio Catalogs and distribute them to our engineers. I had one sent to me personally which I now keep at home and I would like to have another one in my office.

Kenneth H. Olsen

dec INTEROFFICE MEMORANDUM

DATE October 12, 1962

SUBJECT Parking Lot Building 5

TO Loren Prentice

FROM Kenneth H. Olsen

I never saw the drawing for the proposed parking lot across from Building 5.

I would guess that they squeezed as many parking spaces in there as they could and as a result, moved a lot of dirt. Will you briefly look into the possibility of making just twenty or thirty parking spaces for a lot less money. It seems to me that we could do that by moving very little dirt.

Maynard Industries may not go along with a partial deal like that but on the other hand, they ought to be happy to have any work done.

Kenneth H. Olsen

INTEROFFICE MEMORANDUM

DATE October 12, 1962

SUBJECT Catalog Correction

TO Jack Atwood

FROM Kenneth H. Olsen

On Page 349 of the new blue catalog there is a schematic of the 722 Power Supply. This schematic appears correct but there should be a change so that the transformer windings are symmetrical with respect to the ground terminal. The two taps that drive the plus 10 should have the same number of windings above ground as below and the same is true of the minus 15.

Kenneth H. Olsen

cc: Dick Best

INTEROFFICE MEMORANDUM

DATE October 11, 1962

SUBJECT

TO Harlan Anderson
Jack Atwood

FROM Kenneth H. Olsen

This DECUS Meeting which is now going on is rather impressive. We have important people from many parts of the country and they are presenting papers which in their title appear to rate favorably with those presented at large conferences. We should be sure to exploit this meeting and get publicity in the appropriate places.

I suggest that we consider including copies of the Decuscope where we send out literature on our computers. I am sure that many people don't realise how extensive our users group is.

Kenneth H. Olsen

dec INTEROFFICE MEMORANDUM

DATE October 11, 1962

SUBJECT

TO Jack Atwood

FROM Kenneth H. Olsen

I am now looking at a copy of our old catalog on the page which describes our taper pin patch cord mounting panel which is page 309. Next time we redo this I suggest that we don't give the amphenol part number on the sockets that we use. There is no need to tell this and there is no point in telling them how they can make the unit themselves.

I am trying to figure out what the price of the 912 Patch Cords are. We say that they come in plastic boxes and we don't tell how many in a box. We say that it costs $18.00 which I assume is per box, but we do not say that either.

I am looking at an old catalog and this might have been taken care of in the new one.

Kenneth H. Olsen

dec INTEROFFICE MEMORANDUM

DATE October 11, 1962

SUBJECT

TO Bob Lassen
Loren Prentice
Dick Mills

FROM Kenneth H. Olsen

Now that the guard system is working out well, we might consider the possibility of eliminating guards during the day. If we had some of our own people help check badges in the morning and at noon time there is probably so few people coming in that the receptionist will be able to take care of the whole load. One possibility would be to arrange the time schedule so that the night guard is here until 8:30 in the morning and then we may not need a guard as long as we have a receptionist on during the day.

Kenneth H. Olsen

COMPANY CONFIDENTIAL

dec INTEROFFICE MEMORANDUM

DATE October 11, 1962

SUBJECT

TO Dick Best
Ben Gurley

FROM Kenneth H. Olsen

I think we should start a program for developing a new line of modules. Bob Hughes claims that the new plainer NPN silicone transistors are going to be the inexpensive units of the future. I told him to try some of these out in our circuits and then we will get together and talk about what we want in the line of modules.

It would be best if this new line of modules kept at the same voltage that we now have but on the other hand it might be good to go all the way and settle on new voltage levels, new power supply voltages and maybe a new packaging.

Here are a few ideas that I would like to see:

We should consider higher signal levels like 4, 5 or 6 volts with at least a half volt and maybe a full volt of positive bias.

We should take the highest frequency of operation which is convenient to use maybe six or eight megacycles and then make this an inexpensive line so that we no longer need to have several lower priced, lower frequency lines.

We should lay out the pin connections on the units so that it would be easy to put a strip of paper alongside the socket to simplify wiring. Computer Control Corporation has this on their units. Each of the three terminals on an inverter for example should be brought out together and in a consistent pattern.

The power supply voltage should be the same both plus and minus because it makes power supply construction problem easier. This suggestion may not be valid any longer because we do have standard transformers that are both 10 and 15 volts.

We might consider potting the whole works.

This would be the time to consider using the pre-packaged assemblies like the ones we've been getting samples of from Sprague.

With these low leakage transistors we might get along without positive bias (or negative bias).

As we develop this line I think we should put all our notes on Company Confidential paper and be very careful in distribution of information.

Kenneth H. Olsen

INTEROFFICE MEMORANDUM

DATE October 11, 1962

SUBJECT

TO Bob Hughes

FROM Kenneth H. Olsen

We should continue to look for better looking capacitors for our modules. I notice that some people are using ceramic disc capacitors which have the leads coming out on each end rather than both at one end. This way they can lay flat on the board and look a lot more secure than the way they dangle in our modules.

We should also look at capacitors to replace the El Menco types we are now using. One possibility is El Menco capacitors without all the coatings. The ones we are now using are big and ugly because there are so many coatings on them. They do offer them with fewer layers of coatings and it would be interesting to find out what the disadvantages are because they would look a lot better and fit nicer into our modules. If they had axial leads it would make better looking units.

We might also continue to look at the diode size and shape capacitors which Sprague is making. Someday their price might become competitive and they would surely make a nicer looking unit. Maybe we ought to start using those right away on the older high frequency line because the El Menco capacitors there look particularly ugly.

Kenneth H. Olsen

cc: Dick Best

INTEROFFICE MEMORANDUM

DATE October 11, 1962

SUBJECT

TO Jack Atwood

FROM Kenneth H. Olsen

Here are a few comments on your proposal for signs in the entrance to Building 5.

We do not own the large Raytheon sign out by this street and I rather doubt that Raytheon would sell this to us.

The large sign over the shipping dock looks like a good idea. It should stand out well and be readily read. However, I do think that the words shipping and receiving should be made relatively small. We could consider eliminating the word manufacturing from our sign because Purchasing and Personnel are the only key words.

Kenneth H. Olsen

dec INTEROFFICE MEMORANDUM

DATE October 11, 1962

SUBJECT

TO Harlan Anderson
Jon Fadiman

FROM Kenneth H. Olsen

Bill Congleton called to confirm the visit of Mr. Hachette of Cofelec Company.

Mr. Hachette will be staying at The Parker House all week and Bill Congleton offered to drive him out but I said we would take care of it. Jon Fadiman agreed that it might be worth while for him to pick up Mr. Hachette and bring him out here. This way Jon will have a chance to talk with him even though it might not be appropriate during his visit. He is expected out here at 10 o'clock Thursday, October 18.

Kenneth H. Olsen

INTEROFFICE MEMORANDUM

DATE October 11, 1962

SUBJECT

TO Dick Best

FROM Kenneth H. Olsen

On the new Struthers Dunn Reed Relays which we are installing in packages we should be careful to spell out the complete contact ratings. Alan Bradley sells reed relay packages and rates the contacts to carry a normal rating for make and break service of 15 volt amperes with a maximum of 150 volts AC or DC and a maximum of 0.5 amperes. The product of 150 and 0.5 is 75 va. The continuous current rating of the contacts is 2 amperes maximum when closed.

Kenneth H. Olsen

dec INTEROFFICE MEMORANDUM

DATE October 10, 1962

SUBJECT

TO Winston Hindle

FROM Kenneth H. Olsen

Will you remind me at the Work's Committee Meeting Thursday morning that we should choose a Cafeteria Committee to supervise the Cafeteria and to be sure that it is working satisfactorily.

Kenneth H. Olsen

INTEROFFICE MEMORANDUM

DATE October 9, 1962

SUBJECT

TO Bob Lassen

FROM Kenneth H. Olsen

I asked Bob Slater, Vice President of John Hancock Life Insurance Company, if we were obliged to offer group insurance to every employee. He said that if we have a contributory plan we can make a condition of employment for anyone a written promise that they will not take part in the plan. I did not talk extensively with him on this subject but because he is the most knowlegable man in insurance in this area, I feel that we should take this as reason to look into it more extensively. It might be that we will have to remove the present ruling we have that says that one has to join the plan in order to be an employee. We might restate the policy somewhat so that we can allow new people to take this other option when we couldn't hire them otherwise.

Kenneth H. Olsen

INTEROFFICE MEMORANDUM

DATE October 9, 1962

SUBJECT Filenes' Computer Needs

TO Winston Hindle
Maynard Sandler

FROM Kenneth H. Olsen

On Friday, October 5, we had a visit from Mr. Morton Rubin from the Winchester store of Filenes. He had been involved in the original experimenting with an R.C.A. Bismack Computer in Department Store Control. This experiment was in itself a failure but it did teach the company many of the problems of the computers and they now have a fairly sound approach to it.

They have two main needs for computers. The first is their Accounts Receivable which is a large problem just because of its massive size. They have 500,000 accounts of which about half are active each month. Stores which sell hard goods would have about two thirds active each month. Some of the stores are now using NCR computers. This problem is somewhat conventional and is largely a matter of price.

The second problem they have is in merchandising. They keep a "black book" which is a rather conventional inventory record. They would like to know what they have on hand and they would like to minimize their inventory but above all, they would like to know what is being sold so they can order ahead. They categorize their inventory into two groups: staple and style.

It would seem to me that they could, using the information they now have figure their inventory needs. They get about eighty per cent return of punched price tags. They don't expect a better return because the best any store has done is ninety-two per cent.

They are very interested in a point of sale input device. They would like to use their present cash registers because they have six hundred in the Filene stores. There are about fifty in each of the small stores and two hundred and fifty in the Boston store. Each cash register costs $2,000.00 and so this is a significant investment.

They would like to feed in both the product information and the customer information. The customers have their credit cards with them about eighty to ninety per cent of the time. About six per cent of the products are returned. This goes as high as twenty per cent in the dress department.

They do not bother trying to get sales information from items which cost less than $5.00 because of the low price. Items over $50.00, such as coats, have such a low sale that they can be done manually. Each day they make up charts showing what has been sold. Because of the detail of these charts and because they are made so often the number of units is very small and it is difficult to get the information from these reports. This is what makes a good buyer.

Kenneth H. Olsen

INTEROFFICE MEMORANDUM

DATE October 9, 1962

SUBJECT Frequency Testing of Power Supplies

TO Ed Harwood

FROM Kenneth H. Olsen

Before you send power supplies out to industrial testing firms you should look into the AC power sources from Industrial Instruments Company. We do not have literature in our catalog file but I do believe we have a local rep that can give you the information. We might be able to buy one of these instruments for less than the price of having the first one or two power supplies checked.

Kenneth H. Olsen

dec INTEROFFICE MEMORANDUM

DATE October 10, 1962

SUBJECT

TO Jack Atwood

FROM Kenneth H. Olsen

The booth at the NAC Show looks attractive and works out quite well. The door is very clever and very effective.

The pictures of the computers are very attractive but we should somehow add the words telling what they are. We should at least say that they are Digital Computers and maybe we should say so many additions per second and say what the memory cycle time is and the limits of memory 1,000 to 32,000 words.

Kenneth H. Olsen

INTEROFFICE MEMORANDUM

DATE October 10, 1962

SUBJECT

TO Russ Doane
Dick Best

FROM Kenneth H. Olsen

I was showing off the high frequency modules at the NAC Show in Chicago and was rather embarrassed by the units. I found that when Stan was showing them off he covered large parts of it with his hands so the customers wouldn't see it. I don't think we should ever let things like that out of the house even though we feel they are just temporary.

Here is a list of some of the problems with those units:

1. The flux is still spread over the units and looks very poor

2. We should make the layout using our present standards. Most of the components could be made in line or at right angles to the unit and would look much more attractive.

3. Orient the transistors in the clips so the leads are the shortest. Right now it looks like they are put in at random and the leads bent around to fit the holes.

4. The ground plane looks like it was cut out of paper with a child's scissors. The pattern is not only poor but the components are either shorted or its a miracle if they are not. I think we should make new good looking units before we show them at another show.

Kenneth H. Olsen

INTEROFFICE MEMORANDUM

DATE October 9, 1962

SUBJECT Bi-Weekly Distribution

TO Winston Hindle

FROM Kenneth H. Olsen

When we started our Bi-Weekly Reports we were very concerned about the need for security. We would like people to tell freely in the Bi-Weekly Report what they are doing without any concern for the information leaking out.

Now I am concerned that we are suffering more by the lack of distribution than the danger of information leaking out. I would like to have you check into the possibilities of a wider distribution within the company. We might give it to all engineers, or at least one copy to each office, and to certain of the other administrative type people.

We should still maintain security. We might do this by having the old Bi-Weekly returned each week, or every other week, before a new one is issued.

This cannot help but mean more work. We might use the Library for some of these services. This might justify the inflated size of the Library.

Kenneth H. Olsen

cc: J. Atwood
H. Anderson
S. Olsen
D. Best
B. Gurley

dec INTEROFFICE MEMORANDUM

DATE October 1st, 1962

SUBJECT

TO Gerry Haynes

FROM Kenneth H. Olsen

The Weekly Inquiry Report looks good and I think it is serving the purpose very well. Because of the critical nature of this information, I suggest that you stamp each page of these reports with a Company Confidential stamp and that you mail them or deliver them in a large manila envelope.

Kenneth H. Olsen

dec INTEROFFICE MEMORANDUM

DATE October 1st, 1962

SUBJECT

TO Maynard Sandler

FROM Kenneth H. Olsen

During the ISA Show in the middle of October, I plan to visit the Federated Department Stores Incorporated in New York City. I was told to call Mr. John Oran who is an assistant in merchandising. If you can find any information on the problem of automating the point of sale in a department store, it will be helpful.

Kenneth H. Olsen

INTEROFFICE MEMORANDUM

DATE October 1st, 1962

SUBJECT

TO Jack Atwood

FROM Kenneth H. Olsen

Foxboro wants to use our PDP-4 manual with our name on the cover. We told them this was all right but we want to own the copyright on the document so that we always have the right to its contents. We were talking about how this could be done and I was shocked to realize that we were, during this same meeting, delivering about 20 PDP-4 manuals to them which were not copyrighted. This means that we had already technically lost all the advantage which we were worrying about in the question of copyrighting. Will you be sure that everything we print from now on is copyrighted.

Kenneth H. Olsen

cc: Harlan Anderson
Gordon Bell
Stan Olsen

dec INTEROFFICE MEMORANDUM

DATE October 1st, 1962

SUBJECT

TO Gordon Bell

FROM Kenneth H. Olsen

Foxboro has asked us for a brief one page specification on our Fortran which can be included in the PDP-4 manual. I think we should immediately produce this thing. On questions that we are not sure of, we should not mention anything or hedge. It would seem that we could generate a page full of positive statements and leave out all the things we are not sure of.

Kenneth H. Olsen

cc: Harlan Anderson
Arthur Hall

dec INTEROFFICE MEMORANDUM

DATE October 1st, 1962

SUBJECT

TO Ben Gurley
Bob Savell

FROM Kenneth H. Olsen

Following is one of a long list of jobs which we want to accomplish, but we have not had the time thus far. I think we should make a list of these jobs and put them on a schedule so that we can get them done. A long time ago I generated a new switch panel for the paper tape punch but we did not want to build it because we were making an electronic switch. This sort of thing could have been done very quickly if we had some reason to do it, but without any schedule and no time, it might go on forever and meanwhile we are developing more machines.

I think we should sit down with Win Hindle and schedule all these jobs which are relatively trivial, but which have to get done.

Kenneth H. Olsen

cc: Winston Hindle

INTEROFFICE MEMORANDUM

DATE October 1st, 1962

SUBJECT

TO Ted Johnson - WCO

FROM Kenneth H. Olsen

We are working on a low price, low performance, highly reliable tape unit patterned after the one which MIT developed for the Linc Computer. Part of this is a slow speed motor. The most obvious way of doing this is to buy a gear motor, but we would like to consider using a low speed motor because it has less parts and should be more reliable. The Electronic Engineer's Master lists motors of this type made by Teledyne Precision, Inc., 3155 West El Segunda Boulevard, Hawthorne, California, telephone SP 2-2591. The model we are interested in is 46-60 which is a 600 rpm motor.

Will you check on this company for me and let me know if they look reliable and sound enough so that we could depend on them for a product which we would like to be of high quality and also would like to have a reliable source for.

Kenneth H. Olsen

September 28, 1962

Paper Pin Patch Cords

Klaus Doering
Cy Kendrick

Kenneth H. Olsen

At one time I was Air Force Inspector at I.B.M. and I gave them no end of trouble on their techniques for crimping paper pins. I am therefore exceedingly embarrassed to find out that we have had trouble with our paper pins.

The techniques for inspecting these is very simple.

There are two pair of tabs. The outside pair grips the insulation and the inside pair grips the wire. To be sure that both tabs securely grip correctly, one should be able to see the end of the insulation between the two tabs.

It is my understanding that our inspection technique has always been to reject all wires where you cannot see the insulation end between the two pairs of tabs. If this is not your understanding, please let me know.

Kenneth H. Olsen

COPY

September 28, 1962

Paper Pin Patch Cords

Klaus Doering
Cy Kendrick

Kenneth H. Olsen

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It is my understanding that our inspection technique has always been to reject all wires where you cannot see the insulation end between the two pairs of tabs. If this is not your understanding, please let me know.

Kenneth H. Olsen

COPY

September 28, 1962

Harlan Anderson
George O'Dea

Kenneth H. Olsen

On Monday, October 1 at about 11 o'clock, we will be visited by Morgan Guarantee Trust Company of 23 Wall Street, New York 8, New York.

Mr. Norbert G. Leroy who is Assistant Vice President and specialist in European Affairs is our contact at the bank. He is a friend of General Doriot and is working on an American Research like company in Europe. He is a pilot and parachute jumper and may fly his own airplane out.

Mr. Leroy will bring along David Dyche who is with the Corporate Research Department and is probably the one who will take particular interest in our company.

Kenneth H. Olsen

COPY

INTEROFFICE MEMORANDUM

DATE September 20th, 1962

SUBJECT

TO Henry Crouse

FROM Kenneth H. Olsen

I would like to get price and delivery on one ten channel tape head from Electromagnetics Inc. which is in the suburbs of San Francisco. With this memo I am attaching specifications which specify this unit, but they are now making one for Lincoln Laboratory and in the past, have made several more like it. We would like this to be identical with the one they are now making for Lincoln.

They will ask if we won't wait until the one to Lincoln is tested out, but you don't have to answer this. We will put the order in right after we get the price and delivery.

In addition , we would like to know the quantity price on this head because we are thinking of using it in a product.

We would also like to know how the price of this head would change if shielding was not necessary. By this we mean we will only read or only write and never read and write simultaneously.

This specification spells out the mechanical dimensions of this unit so that no adjustments are necessary. You might ask them if it would be less expensive if we eased up on the mechanical dimensions and made final adjustments by inserting shims between the head and the mounting panel.

I would like to have you call them as soon as it is office hours in California and then let me know what results you find.

Brush makes magnetic heads which are quite a bit less expensive but they are standard catalog items and are not made especially for this. You might get a catalog of these items and then we may conclude that it is cheaper to use those.

However, I am quite sure that we will want to buy one of these Electromagnetic heads immediately.

If they happen to have some of these heads at Electromagnetic switch that don't quite meet specifications for one reason or other, we might try buying one if the price is very low in order to try out our experimental tape handler. We could even use it if some of the ten tracks don't work at all.

Kenneth H. Olsen

INTEROFFICE MEMORANDUM

DATE September 19th, 1962

SUBJECT

TO Harlan Anderson
Gordon Bell
Dick Best
Ben Gurley
Dit Morse
Stan Olsen

FROM Kenneth H. Olsen

I received a call from Mr. Glover of Autonetics Industrial Division office in Brookline, his phone number is REgent 4-2610.

Next Monday, September 24th at 9 a.m. until about 4:30 p.m., they are having a session at the Charter House Motel in Chestnut Hill on the Sparks System. This is a program written by the Inertial Guidance Division of Autonetics which uses the Recomp 2 to do circuit design and evaluation. They have been using this for a number of years and now have released it to Recomp users. I suspect that their motivation is to sell Recomp computers to our superiors. The man giving the talk is Mr. C. T. Klinner who is one of the designers of the program.

If anyone wants to go, we should call Mr. Glover immediately because they have limited space and it is going to be on a first come, first serve basis.

Kenneth H. Olsen

INTEROFFICE MEMORANDUM

DATE September 19th, 1962

SUBJECT Rework on Computers

TO Jack Smith
Al Blumenthal
Nick Mazzarese

FROM Kenneth H. Olsen

We have spent quite a bit of time touching up and reworking parts of computers that have been damaged during assembly or check-out period. We have to encourage people to be more careful with this equipment while they are working on it and so I propose that we inspect the unit before they leave final assembly and go into check-out and take care of any rework that is necessary at that time. Then, of course, we inspect it after they are checked out and again take care of rework. This way we will identify where the damage is done and can charge that group accordingly. This will also make it a matter of pride among the individuals in each group as to how little rework they have rather than giving them a feeling of complete disinterest.

If there is anything wrong with this idea, please let me know.

Kenneth H. Olsen

dec INTEROFFICE MEMORANDUM

DATE September 19th, 1962

SUBJECT

TO Henry Crouse
Roger Malenson

FROM Kenneth H. Olsen

If we ever buy a mold for making Linc tape reels, there is a modification which I would like to have put on our drawings. There is a flat surface which protrudes from the insertion side which is placed there so that there is a flat surface on which to reverence the reel on the hub. The mold that Lincoln Laboratory has however has the ports for molding or venting on this surface which means that there is always a certain amount of flash and they lose much of the advantage they would gain by having that surface there.

Kenneth H. Olsen

INTEROFFICE MEMORANDUM

DATE: September 19th, 1962

SUBJECT: Linear Selection of High Speed Memories

TO: Jon Fadiman

FROM: Kenneth H. Olsen

I would like to start some experimental work on linear selection of high speed memory. These are some ideas we had a long time ago, but we never got around to working on them because there was no need to. I would appreciate it if you could pick up some samples of the best linear selection high speed cores that are available now so that we can run some experiments.

Kenneth H. Olsen

cc: Ben Gurley
Dick Best

INTEROFFICE MEMORANDUM

DATE September 19th, 1962

SUBJECT Hourly Personnel Travelling Policy

TO Stan Olsen
Dick Mills
Maynard Sandler
Nick Mazzarese
Bob Lassen
Ed Harwood
Al Blumenthal

FROM Kenneth H. Olsen

We have to develop a consistent policy on paying hourly people when they travel. We have considered a number of alternatives but most of them are too complicated and tend to motivate a person to do unusual things because they will lengthen the time which they are working time and a half.

A very straight forward system has been proposed and I think we should carefully consider it and if there are no serious reasons to reject it, I suggest that we make it a definite policy. It is suggested that we put everyone on salary as long as they are travelling. Ben Gurley suggests that we make the salary equal to 25% over normal 8 hours pay.

It also should very definitely be part of the policy that no one is obligated to travel. With this statement I think we are then clear of most legal problems that may result.

Kenneth H. Olsen

INTEROFFICE MEMORANDUM

DATE September 18th, 1962

SUBJECT

TO Henry Crouse

FROM Kenneth H. Olsen

There are several things I would like to have you do in preparation for making the new magnetic tape units.

1. I would like to have the quantity price on the Borg model 1064 - servo gear motor with a 6-1 gear ratio. I would also like to know if these are available with a 3-1, 4-1 and 5-1 ratio. I also would like the price on motors without gears.

2. We may want to buy a mold to make reels like the one Lincoln Laboratory has made. Will you get a rough price from the molding company as to the price of a new mold in case we decide to buy a new one.

3. There was a company in Chicago called American Molding Company which made most of the reels in the country. They changed their name and I haven't been able to find a catalog under the old name or the new name. We did ask a year ago or so, but at that time didn't find one. Will you check through our catalog file and then telephone them directly and make sure we get a catalog.

Kenneth H. Olsen

dec INTEROFFICE MEMORANDUM

DATE September 18th, 1962

SUBJECT AMA

TO Kenneth H. Olsen

FROM Win Hindle

You asked me to look at the new AMA "Evaluation Series" of films. They do not seem either necessary or suitable for DEC at this time. However, I will review this series of films again after following the progress of the Works Committee meetings which in many ways evoke the same kind of discussion that the films would stimulate.

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dec INTEROFFICE MEMORANDUM

DATE September 13th, 1962

SUBJECT

TO Jack Atwood

FROM Kenneth H. Olsen

American Research has taken on a new suite of offices in the John Hancock building. Part of this is a very pleasant and large conference room. They have furnished these rooms very nicely and they have a blue carpet on the floor. However, the walls are very bare and they asked if we happen to have a large mounted photograph of our equipment around that they might use to decorate it. We, of course, said that we would look around and see what we had.

What we really want to do is take full advantage of this advertising and send down two or three well mounted photographs that will really advertise what we are doing. Will you look into this and let me know what suggestions you have.

Kenneth H. Olsen

INTEROFFICE MEMORANDUM

DATE September 13th, 1962

SUBJECT

TO Stan Olsen
Harlan Anderson
Jack Atwood
Gordon Bell

FROM Kenneth H. Olsen

October 8th - 12th at the National Institutes of Health, Bethesda, Maryland there is going to be the 12th Annual Instrument Symposium and Research Equipment Exhibit. Because of our new interest in this medical work, it would be very worthwhile if we could work in an exhibit here and have one of our PDP computers. There is a possibility that we might have our Mass General Hospital PDP-4 computer with Analog inputs all set for this time and we could show it off here before we deliver it.

Kenneth H. Olsen

dec MEMO

DATE September 12th, 1962

TO Ted Johnson

FROM Aynne Manning

When you have finished Mark E. Connelly's Analog-Digital Computers for Real Time Sumulation, will you kindly return it to the Library.

Many thanks.

cc: Library

INTEROFFICE MEMORANDUM

DATE September 12th, 1962

SUBJECT

TO Stan Olsen
Harlan Anderson

FROM Kenneth H. Olsen

I received a call last week from the president of DiAn Controls Company. He is considering using the same sales representative in the northwest as we are using. The representative has raised the question as to whether it would be right to represent both people who are somewhat competitive. He doesn't feel we're in competition and wanted to know our opinion. I told him that I didn't feel we were competitive either, but I would want to check with Stan and Andy.

If you agree that it would be all right to go along with this, I would like to have Stan call Bob Kodis at DiAn Controls and tell him so. I'd like Stan to make the call because Bob Kodis would also like to know what our experience has been with Drake.

Kenneth H. Olsen

INTEROFFICE MEMORANDUM

DATE September 11, 1962

SUBJECT

TO Stan Olsen

FROM Kenneth H. Olsen

When you were out seeing the world I signed all the quotes. I'm still getting inquiries of them. This might be good because I sympathize with the problems of the Sales Department but it is somewhat of a chore.

One of the quotes I sent out was to the local Air Force Base on some power supplies and other things. Mr. Brothers called me this morning to say that they asked for the quote to be f.o.b. destination and we sent it with the catalog prices and the estimated charges for shipping separately. They would like the shipping charges added onto the cost of each unit. I explained what the problem was and he said that if we would send a letter to them requesting that the f.o.b. might be changed to point of origin that they would take care of it.

This letter should be addressed to The Electronic Systems Group, Attention: ESKKP-1. The request number is CRL-3640. The letter should say that we requested the f.o.b. be changed to point of origin and that we will prepay the transportation charges and will bill these charges separately.

INTEROFFICE MEMORANDUM

DATE September 5th, 1962

SUBJECT

TO Stan Olsen

FROM Kenneth H. Olsen

I received a call on Tuesday, September 4th from Mr. Gordon Worcester of Boston. He wanted to talk to you about a course they are teaching on "The Common Market" at the Boston Chamber of Commerce meeting center in September.

If we are serious about setting up an office in Europe maybe one of us should go to this session.

Kenneth H. Olsen

INTEROFFICE MEMORANDUM

DATE September 4th, 1962

SUBJECT

TO Ted Johnson - WCO

FROM Aynne Manning

With reference to the attached time cards, will you please sign these cards and in the future be sure that your signature appears on them before they are sent through.

Many thanks.

INTEROFFICE MEMORANDUM

DATE September 4, 1962

SUBJECT

TO Bob Beckman

FROM Kenneth H. Olsen

I am quite concerned that our computers are as unreliable in the field as they are. We can blame things on the customer, but really, these things should not fail at all. As you increase your staff I would like to have somebody look over all their failure data and see if we can't come to some conclusion as to what should be done.

Kenneth H. Olsen

dec INTEROFFICE MEMORANDUM

DATE August 30th, 1962

SUBJECT PDP-4 Marshall Space Flight Center

TO Bob Beckman FROM Kenneth H. Olsen

I received a call on Wednesday, August 29th from Mr. Robert Smith of the Marshall Space Flight Center. He would like to come with a team of people next Friday morning, September 7th to consider our PDP computer for space vehicle check out. I, of course, told him yes and they will arrive next Thursday evening and will come here first thing in the morning.

The people will be Messrs. E. C. Mitchell, Jerry Turner, W. O. Mitchell, Ellis Baggs and Robert Smith. We might have the visitor's badges made out for them ahead of time.

Because Andy, Stan and Ben Gurley are not here, I would like to have you take charge of this visit and give them the tour and everything they need. Ask Gordon Bell to stand by so that if they have technical questions, he can answer them. You might have them gather in my office and we can all drink coffee together. Then, you can take them on a tour and sit down and answer their detail questions.

They asked if I would arrange for hotel reservations for them. After I delayed a little bit they agreed to do this themselves. Maybe they were suggesting that we pay for their hotel, but I didn't understand this.

Kenneth H. Olsen

cc: Harlan Anderson
Gordon Bell
Stan Olsen

dec INTEROFFICE MEMORANDUM

DATE August 30th, 1962

SUBJECT

TO Jack Atwood

FROM Kenneth H. Olsen

I am attaching a mock-up of a booklet which the Greater Boston Chamber of Commerce is putting out on science based companies in the Boston area. They have asked us to fill out a questionnaire to be included in the text of this material, now they would like to sell us a page of advertising. This page costs $500.00. My first impression is that we should not bother with this, but I did tell them that we would consider it. I suggest that you send back the mock-up to them and send a note saying that we do not feel this is worthwhile because we are largely a civilian based company and could not take advantage of much of their distribution. We also have very good contacts in the area and so recruiting is not a problem for us in the technical schools.

If you have other ideas than this, do let me know.

Kenneth H. Olsen

INTEROFFICE MEMORANDUM

DATE August 30th, 1962

SUBJECT

TO Dave Denniston

FROM Kenneth H. Olsen

Sometime ago I was given the name of a man who was interested in our computer for medical work. I forget where I got the name and what the interest was, but it might be worthwhile for you to show some interest in this man because we are now particularly interested in the medical field. The name of the man is Dr. Samuel Sutton, Neuropsychiatric Institute, Biometrics Section, 168th Street and Fort Washington Avenue, New York 32, New York.

We are looking at the MIT Lincoln Laboratory Linc computer and considering the possibility of marketing it. This created quite a bit of interest in the medical field and Lincoln Laboratory would like to have us supply it. Their first idea was that people should make their own and buy the parts from us. We would like this best, but most medical people are not interested in carrying on a project like this.

The Linc computer has several features. There is low performance but inexpensive and reliable tape units. It has analog inputs and it has Tektronic's 5 in. oscilloscope output. We are definitely going ahead and putting these features on our PDP-4 computer and so there is a good possibility that this computer will do most of the work which a Linc computer was designed for. We, of course, would like to do this because it would then mean that we have only one computer of this approximate capability in production.

Also, we are particularly interested in medical and industrial control work now because it is not military.

Kenneth H. Olsen

dec INTEROFFICE MEMORANDUM

DATE August 30th, 1962

SUBJECT Salary Review Forms

TO Winston Hindle

FROM Kenneth H. Olsen

Every December we review the salaried people and I think make a very careful review on the study of their salary and propose new figures to the Board of Directors. So far each time it has come up, we are very rushed and our records are not left in a form which is as useful as it should be in future years.

After our review session last December I dictated some notes as to what ideas these records should be like. Aynne Manning probably has these and I would like to have you take these up and make sure we have the forms and records ready so that when we start again in November we can bring all our records up to date and then leave them in decent form.

We have for about two years been working on a new personnel application form. There are a lot of things which we are not covering in the present form and we have had a proposal for a new form which we have not been real happy with but which I thought was going to go ahead. If you could get hold of this copy and think about it a little bit perhaps you could push it through. If it is only our own printing department which is holding things up we can always have it done on the outside.

Kenneth H. Olsen

INTEROFFICE MEMORANDUM

DATE August 30th, 1962

SUBJECT

TO Russ Doane
Dick Best

FROM Kenneth H. Olsen

I received a memo from Bob Hughes about the high speed diodes we bought for the VHF line. He may not have gotten the whole story into the memo, but it would seem to me that from the story in the memo, we should evaluate the Transatron diodes before we go too far in buying large quantities from Qutronics. The amount of dollars involved is very high.

I am particularly concerned about the attitude on money which seems prevalent in our Engineering Department, or at least it appears to be. Sometimes the impression is passed on, at least to our financial people, that the Engineering Department thinks they are working for MIT where they don't admit they know what money is.

We may not ever change what we actually do, but the casual attitude with respect to money is indeed disturbing and we should at least give the impression that we have more respect for it.

Kenneth H. Olsen

INTEROFFICE MEMORANDUM

DATE August 30th, 1962

SUBJECT

TO Loren Prentice
Ken Fitzgerald
Bob Lassen

FROM Kenneth H. Olsen

I have a strong feeling that the best security is to trust your people and let them know that you trust them. Once you give the impression that you have no confidence in them but a confidence in some checking system, then the only challenge left to them is how to beat the system, and we know this is done in all places. The companies with the largest stealing problems are those who have check out passes, bag inspection and all these things. I therefore suggest that we do not make a point about bag inspection or check out passes. We will just leave this unsaid and I think it will leave a better impression with our people.

Without stating it in the announcement we can have the guards make record of all equipment which is being carried out.

Kenneth H. Olsen

INTEROFFICE MEMORANDUM

DATE August 30th, 1962

SUBJECT

TO Winston Hindle

FROM Kenneth H. Olsen

On June 8th I received a letter from the American Management Association, Inc. suggesting, or rather announcing a new service to appriase companies performance. I have done nothing about this, but I would like to have you look it over and decide what you think we should do and if you think it is a good idea, will you make a proposal as to how we should arrange it.

Kenneth H. Olsen

Enc.

INTEROFFICE MEMORANDUM

DATE August 29th, 1962

SUBJECT Fire Insurance

TO Winston Hindle

FROM Kenneth H. Olsen

We are supposedly well covered with fire insurance but, it has been a long time since I have looked into it in detail and because the company is rather large now, I am sure it is not a simple matter. There are undoubtedly a number of policies we could carry and there are a number of situations that we would want to be protected against. I think it would be a good idea if you would look into this situation and let me know if you think we are doing a good job. Right now, I can't even tell you who is looking after the insurance.

Kenneth H. Olsen

dec INTEROFFICE MEMORANDUM

DATE August 27, 1962

SUBJECT Color Movies of Parachute Jump

TO Jack Atwood

FROM Kenneth H. Olsen

Sometime in the future we may want to make up a demonstration or educational movie on the PDP computers. If we were to do this it would be very nice to have some footage of the computer at the parachute jump. I have no idea how expensive this would be but I think it would be a good idea to look into it and see how practical it would be at this time. We might rent a camera and take them ourselves or hire someone else to do it.

Kenneth H. Olsen

CC: Harlan Anderson
Stan Olsen
Stuart Grover

dec INTEROFFICE MEMORANDUM

DATE August 27, 1962

SUBJECT List of Jobs To Do

TO Winston Hindle

FROM Kenneth H. Olsen

My job in the company can pretty well be defined as doing everything that we can't get somebody else to do. Your job then can be defined as doing those jobs which I think I'm doing and not doing or those jobs which I have never quite gotten around to do. Most of these will develop as we have conversations and as you observe what is going on here. Here are a few notes on some loopholes in our organization which I am particularly conscious of. When we were small it was very important that we worked with a great amount of freedom but now that we are getting larger and our organization is more complex we have to spell out many of our policies and do much more detail scheduling and planning.

We have, many times, sat down to develop a consistent pricing formula and technique. This is still not down in a reasonably concise form and we still make mistakes in pricing. Developing this will mean visiting many people in the company which probably makes a very good first project. Dick Best is the one to see first because he is usually involved in almost all the pricing.

There are different types of products which pricing has done quite differently. There is a special one-of-a-kind type system and there is the standard product which we'll plan to make many times. Then there is also the special services which we perform and sometimes do not expect to make money on them but merely consider it a service to the customer.

Part of this should also spell out the techniques by which we make standard bids. These bids may be for the most part collections of our standard product but the techniques or methods by which they are made and the records which are kept afterwards should be spelled out. We all have ideas on how this should be done but we do not have it standardized. Part of this will be a standardized quotation form.

Jay Forrester feels that I should spend a good part of my time looking out for the customer's point of view and making sure that we treat them well. I try to do this but never quite do it as well as it should be so I would like to have your help in doing the same. One project which would help you get started in this and develop a feeling for our problems as related to customers has been suggested by Jay Forrester. This should really come under Stan Olsen's category but he's in Europe for two weeks and he'd be all too happy to have some help. We have very few returns on our modules. This is because the customer can usually fix them faster himself and also because the failure rate is relatively low. However it is a chore for the customer to get the standard parts locally and Jay proposes that we develop a repair-parts kit which we give away to each of our significant customers. I haven't thought about this possibility enough to know what the problems are but basically it sounds like a good idea. We can give away a negligible amount of money and develop a lot of good will, or so it seems.

The main project which I would like to have you pursue is the one which I have been poking at for a long period of time and have been making very little headway. That's the overall planning of the company. This should start off with the planning of new products and new projects and end up with a concise, readily understood, overall prediction for the company. We have had problems in the last year of underestimating our needs for cash. This has basically been because of poor planning in our engineering projects and result in late delivery. We are now doing things on a large enough scale that we cannot afford to be sloppy in our predictions. We have to be careful in doing this because we don't want to be so tied up in red tape that we lose the freedom and creativity which has been so successful in our engineering so far.

We should work toward developing a statement of company goals and company policies. We obviously have goals and policies but we tend to get quite confused when we try to make a statement of these. This is partly because they often sound very corny when they are put down on paper, but also because they are rather complicated and probably multi-dimensional. As you come fresh into the company you might be in a position to help formulate these.

Jay Forrester is very disappointed that we haven't stated these things and spelled out all our policies in detail. I'm sure he's right but we're a little afraid to work too energetically towards Jay's goals because we're afraid he will introduce ideas and policies which are not that of the company and that he would tend to define the adaptability and freedom which we find so important to the company now.

This statement of goals and also the statement of policies might be done in very simple form and then we could have a file of cases where we have made certain decisions and done things certain ways. This might be a file of all the strange cases which most of the company history is made up of. We once gave a donation to the local hotrodders club because of a misunderstanding within the organization. If there was a statement mentioning this and saying that we won't do it again it would be helpful, even though it may never come up again. We, just in the last week, lowered a bid to two computer customers because we had confused them significantly by giving a very low estimate on part of the job. In the end we told them that the new price was the price that it would be from now on, but because we mislead them initially in a very low estimate we would approximately split the difference between the estimate and the final price. After we make a statement of this in the miscellaneous file of policies we can then get reactions from people as to how it worked out. Next time we can know better, so we should do this thing.

Kenneth H. Olsen

INTEROFFICE MEMORANDUM

DATE August 22nd, 1962

SUBJECT

TO Stan Olsen

FROM Kenneth H. Olsen

I want to start an Inquiry Log immediately. I think this should be kept by one of the secretaries in the Sales Department. This log should be a loose leaf notebook with serially numbered pages. Each page should have a ditto form on it so that information can be put down in a consistent form and either typed or handwritten in. We should probably start a new notebook each month and then file the notebooks away.

Each Monday, I would like delivered to my office a status report on inquiries. In this report I would like to have a list of all outstanding inquiries that have not been answered. It should also list the date which they will be answered and who will answer them. Your secretary can readily get this from the log.

At the present time we do not get around to answering inquiries until they are overdue. It is embarrassing when some of these are answered in a negative way after we have taken the full length of time to say no.

Kenneth H. Olsen

cc: Nick Mazzarese
Bob Beckman
Harlan Anderson

August 20, 1962

Memo To: All Supervisors

There has been gross abuse of the confidence we have shown in certain people in allowing them to work on their own during overtime. There have been long bull sessions during which no work has been done; some fellows have had girl friends in during time they are paid for overtime; and some company property has disappeared.

It is normally assumed that supervisors check on and take responsibility for all the activities of their people during overtime. However, some of our supervisors have not had experience before and they feel that someone else will look out for these things. Of course there is no "someone else" and this is part of the job of being a supervisor.

To correct this situation there will be no further overtime without a request made out ahead of time and signed by the man's immediate supervisor. When a supervisor signs this, he is taking the responsibility for the man during that overtime and is, in effect, saying he has complete confidence that this man will respect the confidence shown him during the period of overtime.

Most people who have worked before realize that stealing company property is reason for a summary dismissal. Because many of our people have not had industrial work experience before, it is part of the responsibility of each supervisor to let his people know that even petty stealing is a very serious offense and could permanently mar their working record.

No one is supposed to be within the DEC plant without wearing a badge. If it is necessary to bring visitors in after hours, badges should be obtained for these people before closing time. This ruling will be enforced particularly after working hours.

Kenneth H. Olsen

dec INTEROFFICE MEMORANDUM

DATE August 15th, 1962

SUBJECT

TO George O'Dea

FROM Kenneth H. Olsen

Sometime ago we decided on a policy of insisting that all the key people have physical examinations each year. Because we insisted on this, we offered to pay the cost of the physical. We have not enforced this and I am not sure that anyone has collected for a physical.

This comes up now because I just told Gordon Bell about this and I told him that he should be one of the people to have a yearly physical and the company will pay for it. I believe he is going to go ahead and do this.

I am going to ask Aynne to make a chart of all the people so that we can keep a record of when they have their physical examinations. I believe this chart should include the people who come to the Works Committee, except Bill Congleton and Jay Forrester. In addition, it should also include Gordon Bell and Nick Mazzarese. We have to be somewhat secretive about this because some people might feel offended not being included on the list.

Kenneth H. Olsen

INTEROFFICE MEMORANDUM

DATE August 15, 1962

SUBJECT Executive Paging System

TO Brad Towle

FROM Kenneth H. Olsen

In some ways we have a poor system for executive paging. If we are called from the outside the operator first rings our phone. If we are not there, our secretary answers it. If she doesn't know where we are, she has the main operator gong us. By the time we pick it up and each of the secretaries has asked who is calling, the caller is rather impatient. I suggest that we consider the following system: Each secretary of those who are on the gong system will have a gong button on her desk. We can enlarge the number of those who are ganged somewhat if we use a more sophisticated coding system. Then, all calls will go directly to the secretary and the operator will not have to ask who the caller is.

Most of the people who are on the gong system will have more than one line coming into their office. Outside calls can come on one line and inside calls can come on another. In this way the secretary or the man in the office can differentiate between them.

This would mean working out a system in which the person being called can dial into the same line which the secretary is holding. If this can be readily done I think we should go ahead with the system.

We have heard a number of complaints about our telephone answering service lately. One complaint is that it sometimes takes minutes before the call is answered. The other complaint is that sometime after the operator calls individuals, she comes back and asks who is calling. I believe this is simply because she forgot to ask originally, but the implication is that she has the man on the phone and whether he is in or not is dependent on who is calling. If the girl forgets to ask immediately the name of the caller, she should not bother asking at all and let the man being called figure it out.

Kenneth H. Olsen

CC: Stan Olsen
Harlan Anderson
Maynard Sandler
Dick Best
Ben Gurley

INTEROFFICE MEMORANDUM

DATE August 15, 1962

SUBJECT

TO Ken Fitzgerald

FROM Kenneth H. Olsen

I received a phone call from our patent lawyer who had been talking to one of our customers about our laboratory modules. They are very happy with the circuits and think that they work well and are very useful. However, they are having extreme difficulty in pulling the modules out of the case. I think that we ought to do something about this right away. We had considered several possibilities, one of them is to put the banana pins into a spinning jack to smooth off the burrs before we use them. Another possibility is to lubricate them all with Molybdenum disulphide or some other lubricant. George Gerelds, at one time, collected a lot of samples of this and other lubricants but I am not sure how we had left it.

I would like to have you look into this and let me know what you propose that we do.

The customer is Transonics which is in the Boston area and I think we should make a particular point to fix up their units. We might give them a new mounting panel with improved banana pins.

Kenneth H. Olsen

CC: Stan Olsen

INTEROFFICE MEMORANDUM

DATE August 15, 1962

SUBJECT

TO Harlan Anderson

FROM Kenneth H. Olsen

Thursday morning, August 14th Gordon Bell, Ben Gurley and myself visited the RCA branch of Foxboro. My impression of the people and of their competence were very high after this meeting. I think we can develop a very good relationship with them.

CDC has a number of advantages on the charts which they have drawn. Their costs are somewhat lower, and they have a high speed arithmetic element available for the CDC 160, and they theoretically can expand in memory indefinitely.

We told them that we are developing a high speed arithmetic package and that this will be available. We offered to send them the specifications on this and also offered to work out the details of this with them.

I think that if at all possible we should make the expand memory available as a standard feature and do not increase the cost for this.

Although the CDC 160 is slightly less expensive in some areas, I do not suggest that we try to meet them on price. If we do this, CDC will probably lower their price and then no one will make any money.

We do have a very significant advantage over CDC in that we are physically close and that they know that we have people who are right here who can speak for the project. I also have the feeling that we have gained their confidence.

They proposed to go into this field relatively slowly, they will order 2 or 3 computers this year for delivery early next year and after that expect to sell between 4 to 6 computers each year. They do not expect to make money as a group until 1965, although they expect to lose less and less each year before that.

They are considering the power field and they feel that they have some equipment which puts them in a propriety position in this area. This is completely separate from the project which they bought a CDC 160 for.

We have promised to do a number of things for them. Some of the ones which I remember are as follows:

1. A price on the standard memory switch.
2. Tentative specifications on the high speed arithmetic element.
3. A detailed list of all programming helps which we have available and those which we promised to have available.
4. Tolerance to power failure.
5. We propose to run detailed reliability tests for them.

The list of things which we promised them is a lot longer, these just happen to be the things which I remember.

I suggest that after the WESCON show we set up the PDP 4 in our west coast office and run it 24 hours a day for 4 weeks with a test program on it to gather life data. The alternative to this is to bring the machine back here and run the life test here, but I think it can be done just as well on the west coast. I suggest that they do not use the machine for any other use during this period.

They say that certain applications, an algebraic compiler is competitively very important. Some of the chemical companies want to run their analyses on the computer and because these optimizing programs are algebraic they feel a compiler is very important.

They are very much interested in the tolerance of the computer to power failure. They must have standby power for their systems and so they have to know how long it will take before the machine fails after a power failure. They will have standby power, but they need time to switch it in. 30 milliseconds is good, 16 might do and 8 would be poor.

I told them that we are developing a high frequency motor generator to improve our tolerance to power failure and they would be very much interested in this.

I think we should look into very large silicone control rectifiers to be used on a switch turn off power so that we can run our experiments on time delays.

They have a circuit problem with our IOT pulses because they are too narrow for their circuits. I suggest that we go over this carefully with them and see if we can't work this out for them. I think Ben Gurley or Dick Best should be involved in this.

Kenneth H. Olsen

CC: Ben Gurley
Gordon Bell
Stan Olsen

dec INTEROFFICE MEMORANDUM

DATE August 13, 1962

SUBJECT

TO Bob Beckman
Ben Gurley
George O'Dea
Stan Olsen

FROM K. H. Olsen

I received a telephone call from Ed Fredkin saying that he felt that our prototype machine and the DEC machine which will take its place have not and will not receive the same attention that computers in the field receive. We had promised him that they would receive the same attention and that he should be able to expect the same reliability. He asked me to write a letter to the people doing the maintenance to make sure that they do give this machine the same respect that they would want in a customer's own plant. I assured him that I would and that we would give the service we promised.

He also mentioned that he was considering going into the PDP servicing business because our customers are quite concerned about our lack of service. He claims that we have not marginal checked any of our computers in the field and have no plan for preventive maintenance. I assured him that we have a program set up and that we are about to take complete responsibility for marginal checking and preventive maintenance. However I did not go into the details of this because I have very little confidence. If this is the feeling that is common within the field, we should be sure that we give enough service that people look to DEC and don't look elsewhere.

Kenneth H. Olsen

KHO:eet

INTEROFFICE MEMORANDUM

DATE August 8th, 1962

SUBJECT

TO Loren Prentice
Ken Fitzgerald

FROM Kenneth H. Olsen

I walked through the plant after closing last Friday and was a little surprised to see the condition of the painting area. There were several cans of solvent left outside in the spray booth and there was one 5 gallon paint can with a completely open cover filled with acetone. I get the impression that this is the way things are left every night. This open can of acetone must generate a large amount of explosive vapors in the whole shop area.

Kenneth H. Olsen

INTEROFFICE MEMORANDUM

DATE August 6th, 1962

SUBJECT

TO Alma Pontz

FROM Kenneth H. Olsen

Arnaud de Vitry is planning to leave the country August 30th and before he leaves, he needs a statement of his earnings. He would like a letter from us summarizing the director's fees he received in 1962. He would like to have this broken down into two figures - that before June 30th and after June 30th. He will be here on Tuesday, August 7th and would like to pick up the letter at that time. This is a director's meeting and so he will receive a director's fee at that time and this should be included in the letter.

Kenneth H. Olsen

cc: George O'Dea
Harlan Anderson

dec INTEROFFICE MEMORANDUM

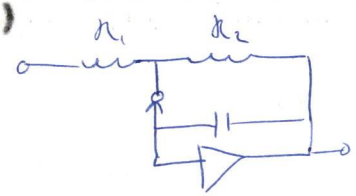
DATE August 2nd, 1962

SUBJECT The wonderful operational amplifier.

TO Dick Best
Ben Gurley
Don White
Barbera Stephenson

FROM Kenneth H. Olsen

I suggest that we first of all try to develop an ideal operational amplifier. These have wonderful charactistics and can be used for so very many things. This unit should have almost infinite input impedance and I think that it should have an output swing of ± 10 volts. It should have a gain of at least 0.1 million, but it would be best if it was about 30 million. It should also have optional chopper stablizing amplifier. If we had this ideal operational amplifier it would make very simple sample and hold circuit. In the following circuit if R1 = R2 there is unit to gain. If the resistor network is disconnected from the input and there is no leakage in the switch or the input amplifier or in the capacitor, it should remember its setting forever. (There also cannot be any leakage in the input to the stablizing amplifier.)



I don't know how it will make this ideal switch, but if instead we put the switches on each end of the resistor divider, we could use a simple transistor because the output of this operational amplifier is very low impedance and the input is probably another very low impedance operational amplifier and so a simple inverter would be a very good switch.

The operational amplifier will also make a very nice D to A converter. If we use weighted resistors we can use a simple inverter to the input. The potentiometer in series with the weighted resistor will compensate for the variations in satuation voltage. The output of this decoder will be ± and will eliminate one of our big arguments for all signals being negative with respect to ground.

I feel that we should consider the field effect transistor or the nuvistor vacuum tube as input stages to an operational amplifier. The nuvistor input stage would be a pair of balanced tubes with a transistor current source in the cathode. There probably should be a balancing resistor in series with the plate resistors. These can then drive the balanced transistor stage which also would have a transistor

current source in its emitter. In most operational amplifiers only the first stage or two are balanced, but we might as well have balanced all the way.

The input to an operational amplifier is a little simplier than a comparison circuit because the input never varies very far from 0 volts. The big problem however is that you want a large amount of gain without having it oscillate when feedback networks are put in place.

Kenneth H. Olsen

INTEROFFICE MEMORANDUM

DATE August 2nd, 1962

SUBJECT

TO Dick Best
Don White

FROM Kenneth H. Olsen

We need to develop experience with operational amplifiers. I would suggest that we consider the possibility of buying a 1/2 dozen of the inexpensive vacuum tube operational amplifiers from George Philbrick Associates with the appropriate power supplies if we don't have them. With this we can then experiment and learn the problems with drift and also how you would make a digital analog converter and a sample and hold circuit with operational amplifiers.

At the same time, we might order one of their potted transistorized operational amplifiers. If this is as good as they claim, maybe we should not bother making our own but simply buy operational amplifiers from Philbrick.

Another company that makes units like Philbrick is Embree Electronics Corp., 993 Farmington Avenue, West Hartford 7, Connecticut. They are represented by Michael S. Coldwell, 41 Lancaster Road, Needham 92, Massachusetts - Hillcrest 4-1142.

The Embree amplifier uses nuvistor tubes input stages with two 6CW5 output tubes, the output voltage range is ± 100 volts. The price is $95.00 for a plain unit with soldered terminal connections. In addition, they have octal plug-in units just like Philbrick.

We should also look into choppers that we can use in stablized amplifiers. Embree uses a James C-2713 which they claim gives them 2 microvolts of noise.

There are several books on analog computation which describe operational amplifiers and go into many of the problems in detail circuit design. One of the simplier ones is Volume II of the computer basic course by Howard W. Sands Publishing Company. I think we have most of these in the library, but if there are any others which we do not have, we can check into it.

Kenneth H. Olsen

dec INTEROFFICE MEMORANDUM

DATE August 2nd, 1962

SUBJECT

TO Jack Atwood

FROM Kenneth H. Olsen

I think we forgot to put a patent disclaimer on our present catalog and logic book. Will you be sure that when we do our new book that we do state that these are given as suggestions and do not imply a license and something to the effect that we do not know which are patented and do not mean to imply that they are not patented.

Kenneth H. Olsen

INTEROFFICE MEMORANDUM

DATE August 1st, 1962

SUBJECT Quality Control Procedure

TO Dick Best
Bob Hughes

FROM Kenneth H. Olsen

We had visitors a couple of weeks ago from North American to review our facilities. They were particularly interested in our Quality Control procedures. They found our procedures unsatisfactory and as a result we were removed from the bidders list.

My impression is that our quality and our Quality Control are reasonably good, but our procedures are informal and are not well controlled. I would like to see Bob Hughes make a schedule for systematizing this so that when we are reviewed we can give people very simple straightforward manuals that will explain exactly what we are doing.

There is a new consulting firm in West Acton called Reliability Dynamics Institute. We might listen to a proposal from them to set up this procedure for us.

Kenneth H. Olsen

cc: Maynard Sandler
Jack Atwood
Stan Olsen
Harlan Anderson

INTEROFFICE MEMORANDUM

DATE July 25th, 1962

SUBJECT Industrial Dynamics Meeting - August 2nd

TO Group 1 (3:00 to 4:30 p.m.)
Ken Olsen
Gordon Bell
Dick Best
Ben Gurley
Dick Mills
Maynard Sandler
Bob Savell

Group 2 (4:30 to 6:00 p.m.)
Harlan Anderson
Jack Atwood
Bob Beckman
Jon Fadiman
George O'Dea
Stanley Olsen

FROM Aynne Manning

Dave Packer has asked that I remind you to carefully read Chapters 17 and 18 of Industrial Dynamics before your scheduled meeting on Thursday, August 2nd.

dec INTEROFFICE MEMORANDUM

DATE July 24th, 1962

SUBJECT

TO Harlan Anderson
Gordon Bell
Ben Gurley

FROM Kenneth H. Olsen

I received a call from Dr. Frank Ervin on Wednesday to talk about our offer for a computer. He felt this was a very generous offer. They have the feeling that they can be much more successful in asking for money from the government than they have before, and so they are even more enthusiastic about the program than before. However, they are confused by which computer would be best for them.

Dr. Ervin would like to do experimental work where he ties the computer directly to the experiment. However, as Chairman of the Computer Committee he is perhaps going overboard in trying to be objective making the decision. Many of the other people would like to do statistical work which they are now doing on the 7090. Because of this work, he feels they probably should have a more capable computer than the PDP-4. I suggested to him that he probably needs more than one computer, and that if he is doing experiments directly on the computer, it might not be satisfactory for the people who want to do statistical work. The reliability of a computer being tied to experiments isn't up to what normal users expect. He likes to hear these words because he would like nothing better than to have his own computer, which he might share with a few other laboratories. It is now up to us to convince them that what they should have is one of ours for laboratory use, and then continue to rent 7090 for those who want to process cards, or maybe they should even rent a full-time 1601.

He is still concerned about the programming helps that would be available on a PDP-4. I have told him that I have the same problem that he has in trying to evaluate what programmers say about these things. I told him that I would continue to look into it and encouraged him that when I get back from vacation, we can talk further about it. If Gordon Bell can do anything to influence these people on the usefulness of the PDP-4 and the wonderful aids that will be available, I think it would help our cause. I don't think that we are interested in competing with IBM in the processing of large amounts of statistical data.

Kenneth H. Olsen

INTEROFFICE MEMORANDUM

DATE July 20, 1962

SUBJECT

TO Gordon Bell
Ben Gurley
Harlan Anderson

FROM Kenneth H. Olsen

On Thursday morning, we were visited by all the top people from Bolt, Beranek and Newman. They came here to impress on us the poor operating efficiency of their PDP-1. While they were talking, we impressed upon them the problems we have in working with them, the difficulties we have in working out arrangements with them, the fact that they exaggerate their cases, and that we think they are too shrewd and hard-driving.

After we exchanged hard words for a while, everybody was apologetic and cooperative, and we concluded that the only thing we can do is to make that machine work well. I promised them that Ben Gurley would show up on Monday to review the situation and to work out a plan by which we will get that thing in good shape in the immediate future. Two other interesting points came up from the meeting. We told them that we gave them $34,000 to put DECAL down on paper in useful forms and as far as we can tell, we got nothing useful out of it. Licklider argues with this, and is in the mood to prove to us that DECAL is useful, and that we might be able to get him to do the writing at not too great a cost. I told him that we would be very happy to talk over the situation with him. It might be a good idea if Ben Gurley talked about this when he was down to BBN next week.

The other interesting point was about a new project they are working on. Jordan Baruch has about 1/3 of a million dollars to experiment with data collection for hospitals. He plans to hook wire lines between typewriters in wards at Mass. General Hospital to the PDP-1 computer in Cambridge. Into this will feed all patient data including prescriptions and dosages and the like. This first piece of money is just to demonstrate it for the first year, and if it works out, the project will grow. Even though this is experimental in nature, it is important that it have almost 100% reliability. I told Leo Beranek that they just can't run experiments in a laboratory on a computer and then have it available for 100% reliability on this hospital type use. He had apparently never considered this, and wanted us to work on the machine so that they could have their laboratory experiments and the hospital work all going simultaneously. I suggested that they seriously consider a PDP-4 computer, because it is less expensive than a PDP-1, and they might be able to buy one for this hospital experiment alone. Because it already has teletype inputs, this might be a lot easier to use. In a final situation, they would like about 10 teletype inputs.

This hospital unit would also need a magnetic tape unit because of the large amount of information to be stored. Because there is no reason for it to be compatible with IBM, and because many of the characteristics are not as critical as they are in business usage, a link type tape unit or one of the other inexpensive units that we have looked at might be just the thing. We should probably decide which of these tape units is best and go after it with all enthusiasm.

When they came down to visit, they had in mind getting a new PDP-1 computer. I suggested that this would not be the answer to their problem, because under no circumstances can we give them one immediately, and they have to get their unit working immediately. However, they are going to generate a list of terminal equipment which they would want on a new machine if they got one, and we will then give them a price on this with a trade-in for the old one. If we did this some time ago, we might have saved a lot in installation costs. There might still be a significant amount of saving in maintenance and installation costs, and it might be worth our while to be quite generous on this. We tend emotionally to be against giving them anything, because they don't seem to appreciate anything we do for them. However, I think this might no longer be the case, and it might be very worth while for us to be generous on this point. One of the first things we should do is find out what our real manufacturing cost is, and whether there is anything salvagable or not in the old machine if we got it back. We asked them to generate a list of the terminal equipment, because telling us simply they wanted exactly what they have now is not really sufficient. A few of the things like two typewriters and two punches might be very difficult and expensive, and there might be considerable saving in leaving them out.

Kenneth H. Olsen

dec INTEROFFICE MEMORANDUM

DATE July 20, 1962

SUBJECT

TO Roland Boisvert
Gordon Bell
Ben Gurley
Dick Best

FROM Kenneth H. Olsen

A few months ago, we had a visit from Datamek Corporation in California who are making an inexpensive tape unit. We told them that we were interested in this, and they now have their production prototype unit ready and would like to talk to us about it. Mr. Tracy from their organization will be here Monday, August 13, and will call to make an appointment. If I am not here, I told him to call Roland Boisvert or Gordon Bell. This unit is more conventional in design than the one we looked at from New Jersey, but has lower performance, and I believe will be compatible with IBM.

Before they come to visit us, they are going to try to sell it to John Ackley at ITT. I told them to go ahead and do this, and not worry about cutting us out of the business.

Kenneth H. Olsen

dec INTEROFFICE MEMORANDUM

DATE July 20, 1962

SUBJECT

TO Dave Dubay

FROM Kenneth H. Olsen

When they re-made the walls in my present office, they covered up the volume control for the loudspeaker. I am going to be on vacation from July 23 to 27, and in that time I would like to have you re-do the volume control so that it is accessible. A good place to put it would be just behind the door to the back room in my office. The speaker can be left above the false ceiling, because I think people can hear well enough through it.

Kenneth H. Olsen

dec INTEROFFICE MEMORANDUM

DATE July 5, 1962

SUBJECT

TO Harlan Anderson
George O'Dea
Dick Mills
Maynard Sandler

FROM Kenneth H. Olsen

For some time we have seen the need for strengthening our administrative staff. Jay Forrester has pointed out a number of areas in which we have been quite weak. It is very difficult to fill this job because it is so vague. Most of the administrative tasks are being taken care of now one way or another, but, indeed, they are not as thoroughly done as they should be. An example of one of the tasks which are not being taken care of is the recruiting of professional personnel. We get many inquiries and resumes, but we often let them slide and, indeed, are often impolite to the people.

Next Thursday morning, Mr. Hindle, who is on the Industrial Liaison staff at M.I.T. will come to visit us. He had had very general administrative experience at M.I.T., and has a very pleasant personality. He is one who Jay Forrester suggests might be very useful to us. If possible, I would like to have you talk with him when he comes at that time.

Kenneth H. Olsen

dec INTEROFFICE MEMORANDUM

DATE July 5, 1962

SUBJECT

TO Loren Prentice

FROM Kenneth H. Olsen

Andy and I visited M.I.T. last week to look over the PDP computer. It was rather disappointing to look at the scope console because the paint had been scuffed off the legs.

I think we should consider two possibilities to cure this problem. I think that if we had a better preparation before painting that we would suffer less from paint chipping off. We have already observed, I believe, that paint sticks a lot better to our aluminum than to our steel, because we prepare our aluminum better.

I would like to see us get prices on brush chrome plating the frames for our tables and scope consoles. I'm sure that this will add to the cost, but the legs on that scope console look poor.

Kenneth H. Olsen

dec INTEROFFICE MEMORANDUM

DATE July 5, 1962

SUBJECT Testing Personnel

TO Bob Hughes

FROM Kenneth H. Olsen

At our Works Committee Meeting last Monday, Dick Best mentioned that you would like to have the testing personnel report directly to you. We decided that this would not be a good idea, and here is some of the reasoning:

If they reported directly to you, then Dick Best would have to supervise you and make spot checks on your work. We cannot tolerate having the group doing the testing being the final check on the testing.

There is no reason why, with due diligence, you cannot have control over how the testing is done, and it is a simple matter to have people bring their problems to you.

You and your people can keep careful check on what is being produced, and how the tests are being made, and in addition, make spot checks in the stockroom. If your spot checks in the stockroom produce a large number of defective units such as 31 power supplies, it means that you have not done your job in watching production and watching inspection before the units were packaged. Once in a while, you might find that the equipment was not calibrated right, or that someone fell asleep during the testing, but if the number of units that get by this way is large, it means that you have not done your job completely.

Kenneth H. Olsen

INTEROFFICE MEMORANDUM

DATE July 5, 1962

SUBJECT

TO George Brown

FROM Kenneth H. Olsen

Part of our lease with Maynard Industries on the top floor of Building #5 is free use of the parking lot across from our shipping dock. However, we have to fix this up and start using it before next July in order to have use of it. It will be very convenient to have that space for visitors and salesmen when the Purchasing Department moves over within the next week or two. It would also be nice to have it for the Mother's Shift, because it would be a lot closer to the door than our present parking lot.

Will you find out what will be involved in making that parking lot and get some bids on this job.

Maynard Industries has drawings of that parking lot, and they have been approved by the town, and so we probably are obliged to follow them. I suggest you get copies of these drawings and if they are reasonable, go ahead and get bids on them. You should work with Henry Crouse in getting these bids so that we have good records of what we do.

Kenneth H. Olsen

CC: Maynard Sandler
Loren Prentice
Dick Mills

dec INTEROFFICE MEMORANDUM

DATE July 5, 1962

SUBJECT

TO George Brown

FROM Kenneth H. Olsen

Before the winter time, we should consider plans for snow removal around Building #5. Ep Toumi has a truck with a snow plow on it, and we should consider the possibility of having him plow our lot. He might be more readily available than the local mason. We will have to be very careful in doing this, because it might get us into trouble doing business with our own employee. We might have him do it on company time at no extra pay, but we would pay rent on his truck.

We should also talk with Raytheon and find out what their experience has been with the local mason to see if that is satisfactory.

In addition, we should buy before the first snow a good heavy-duty snow blower. We have to keep our loading dock clear and our sidewalks clear, and I don't think that a regular snow plow is satisfactory for this. With a good machine, one of our own men could very readily perform this task.

Kenneth H. Olsen

CC: Henry Crouse

dec INTEROFFICE MEMORANDUM

DATE July 5, 1962

SUBJECT M.I.T.'s Computer

TO Bob Beckman

FROM Kenneth H. Olsen

Andy and I visited the M.I.T. PDP computer last week and made note of a number of things that should be fixed up.

Almost a year ago we decided to replace the upper indicator panel with one that didn't have the openings for the sequence break lamps. We still have not done this, and it looks ugly for the machine which is considered our showpiece.

The white panels in the front are exceedingly dirty. I think the paint job was defective and it is very porous. We should try to scrub this ourselves, and if it is not cleanable, we should replace the panels because they definitely do detract.

The tape folder on the punch doesn't work at all.

They have a brown typewriter which looks out of place with the blue computer.

The covers on the chair seats have worn out.

The paint has been rubbed off the scope console legs, and it looks almost as bad as the IBM 7090. In looking through the log, I get the impression that they have difficulty in making contact with people at DEC to get service on the machine. Because their machine is a gift, they may not be pushy enough to get good service.

Kenneth H. Olsen

CC: Stan Olsen
Ben Gurley
Gordon Bell
Ed Harwood
Al Blumenthal

INTEROFFICE MEMORANDUM

DATE

SUBJECT

TO

FROM June 29th, 1962

Harlan Anderson
Jack Atwood
Bob Beckman
Gordon Bell
Dick Best
Al Blumenthal
Peter Bonner
Lee Butterworth
Jim Cudmore
Bob Dill
Jon Fadiman
Ben Gurley
Ed Harwood
Bob Hughes
John Koudela
Bob Lassen
Fred Mariani
Nick Mazzarese
Dick Mills
Dit Morse
Elsa Newman
John O'Connell
Stan Olsen
George Rice
Bob Savell
Barbara Stephenson
Bob Tringale
Brad Towle
Dick Whipple
Don White
Ron Wilson
Others Concerned

Kenneth H. Olsen

We have been very conscientious in using the DEC Dining Room only for business purposes. Since we have taken only business guests, this cannot be considered a form of extra income to the individuals who use the restaurant. However, we do not have any records to prove that we use the Dining Room only for business purposes, and that it is not a place where we give free meals to certain people within the company.

We should keep these records and so we will have to insist that everyone who uses the restaurant notify my secretary or Andy's secretary that they will be using the restaurant and who their guests will be. At the end of the month, the secretaries will match these records with the signed slips from the restaurant. We would like to encourage you to be conscientious about this practice because, to make the records meaningful, they are going to have to be complete.

Kenneth H. Olsen

INTEROFFICE MEMORANDUM

DATE June 20th, 1962

SUBJECT

TO George Gerelds

FROM Kenneth H. Olsen

Here is the terminal which I think we should consider using on our power supplies and current drivers which use etch boards. This, I think, will make more rugged connections and will allow a better solder joint for heavy wires.

Will you get samples of this and give it a try. We will have to use make-shift tools in order to set it, but I think we can get an idea as to whether we want to use it or not.

Kenneth H. Olsen

INTEROFFICE MEMORANDUM

DATE June 20th, 1962

SUBJECT Sign for coffee area.

TO Jack Atwood

FROM Kenneth H. Olsen

Now that we have two areas for serving coffee within the company we are going to eliminate the double coffee break time. We will standardize on 10:00 a.m. to 10:10 p.m. and 3:00 p.m. to 3:10 p.m. for everyone. Right now many of our people are not only taking double coffee breaks, but they are starting early and leaving late. John Tobin claims that I should pay for his loss of sales when I happen to walk by the coffee shop at 10:10 a.m. or 3:10 p.m.

Bob Lassen has sent our a new notice to people telling them what the coffee break time is and also telling them that the coffee area will be closed at all other times.

I would like to have you make up two pair of signs -- one to be put by each entrance way to the coffee area and one set to be hung from a chain that will close up the coffee area. These signs should explain which times the coffee area is open. The times are before 8:15 a.m., 10:00 a.m. to 10:10 a.m., 12:00 noon to 12:45 p.m., 3:00 p.m. to 3:10 p.m. and after 5:00 p.m.

Kenneth H. Olsen

dec INTEROFFICE MEMORANDUM

DATE June 15th, 1962

SUBJECT

TO Harlan Anderson
Jack Atwood
Bob Beckman
Gordon Bell
Dick Best
Ed Fredkin - Information International
Ben Gurley
John Koudela
Dit Morse
Elsa Newman
Stan Olsen

FROM Kenneth H. Olsen

It was formally decided on June 13th to discontinue all work on DECAL. As far as we can tell, DECAL makes a poor assembler and does not operate as a compiler. Everyone agrees that we can spend money indefinitely on improving DECAL, but no one dares express an opinion as to when it will be useful and no one even knows who would use it if it were done.

It has further been decided that we will, with all haste, do a bang-up job of publishing a complete description of MACRO. We will then ignore all other assemblers and compilers other than MACRO and all our programs, including all those which we distribute, will be in MACRO.

It has also been decided that we will no longer distribute copies of DECUS programs to DECUS members. We will limit our distribution of programs to a copy of MACRO and those maintenance programs which are useful. We should check all tapes before sending them out to make sure that they are nothing that will embarrass us. We should also set up the procedure so that we formally decide what we are going to send out and things are not sent out by any individual in the company who feels in the mood to do so.

Kenneth H. Olsen

INTEROFFICE MEMORANDUM

DATE June 15th, 1962

SUBJECT

TO Stan Olsen

FROM Kenneth H. Olsen

I sometimes have the impression that parts of your department are not under control. I get the impression that some people follow their current whims without any feeling of goals or any interest or concern in the desires of management. For example, I understand that Herb Bornstein is programming the integral roots of something or other but I can't find out who asked for it or even who wants it.

We are very liberal in allowing people to set their own goals, but we are not a hobby shop.

Will you develop a system something like that being developed in the Engineering Department so that everyone will put down on paper what he thinks he is doing, and, where appropriate, some schedule so that he can measure his success. Those areas which are difficult to schedule and itemize are the ones which need it the most. If someone is trying to sell computers to a half dozen customers, he is the one that most of all needs a schedule of time on these customers.

Kenneth H. Olsen

cc: John Koudela
Bob Beckman
Nick Mazzarese
Barbera Stephenson

INTEROFFICE MEMORANDUM

DATE June 15th, 1962

SUBJECT

TO Al Blumenthal

FROM Kenneth H. Olsen

We are undoubtedly going to be asked to give references for Roland Silver. Consultants are very dependent on references from their previous clients. I would like to have a short list from you of the programs you have gotten from Silver in the last few months and a comment as to whether you have sufficient write up on these and also an estimate of what it cost. It also would be useful to know whether the results are being used or not.

Kenneth H. Olsen

cc: Ben Gurley

dec INTEROFFICE MEMORANDUM

DATE June 15th, 1962

SUBJECT Personnel safety near high voltage power supplies.

TO Bob Savell FROM Kenneth H. Olsen

Ever since the engineer was electrocuted during the show on Armed Forces Day we have been much more conscience of the need for safety. We were very disturbed to find out the attitude of many of the technicians with respect to our displays. They apparently feel that they are like television where you can get bit, but you can't get seriously hurt. Some say that they have gotten bit many times without being hurt. The fact that they have gotten bit without harm makes the scopes all the more dangerous.

After the LRL machine is out of here, and you have recovered from the strain, will you prepare a proposal as to safety measures on oscilloscopes and present it to the Works Committee.

Kenneth H. Olsen

cc: Dick Best
Ben Gurley

INTEROFFICE MEMORANDUM

DATE June 15th, 1962

SUBJECT

TO Bob Beckman

FROM Kenneth H. Olsen

We have been postponing offering a maintenance contract to our customers for a long time. We have to get this out so I propose that you make a first pass rough draft at it and present it to the Works Committee on Monday, June 18th. This way you can get most of it done and get attitudes of people on the rest of it all at one time.

Kenneth H. Olsen

cc: Harlan Anderson
Ben Gurley

INTEROFFICE MEMORANDUM

DATE June 15th, 1962

SUBJECT

TO Phil Sheehan

FROM Kenneth H. Olsen

There are two large vacuum tube modules from a large memory system which we had been storing which had been left here after we shipped it out. Bob Hughes brought one of them over to your building and supposedly left it in your department and I am sending over the other. In addition, there is a cardboard box in the storage area on the 5th floor filled with miscellaneous gray pieces of tinware which went with this unit. You can recognize these because it is gray wrinkled paint with stainless steel trim. Will you package up this tinware with the two large vacuum tube modules and have our truck drop them off at Wolf Associates, Concord, Massachusetts, or else call them and tell them that it is available and they can pick it up at any time.

Wolf Associates is in a new building near General Radio in Concord. If you turn off from Route 62 in West Concord toward General Radio and continue past IBM, Wolf Associates is on the left hand side before you come to Route 2.

The large memory system was being stored here for sometime and during that time we lost track of the various parts. They belong to the Air Force and we should get them out of here. Wolf Associates has borrowed the unit from the Air Force.

Kenneth H. Olsen

INTEROFFICE MEMORANDUM

DATE June 13th, 1962

SUBJECT June 11th Automatic Testing Meeting

TO Dick Best
Bob Hughes
Jim Cudmore

FROM Kenneth H. Olsen

Here are the conclusions which I understood we came to at our meeting on June 11th where we discussed semi-automatic testing of modules.

1. We will immediately make an automatic tester for pulse amplifiers. For the first pass we will take a very simple approach. We will use five separate set ups for the five different tests. Each set up, however, will automatically sequence through each of the three pulse amplifiers.

2. We will automatically test the DC portions of flip-flops.

3. We will program the Tektronics tester so that we can follow all rise time and fall time tests on flip-flops.

4. We will continue to manually check margins and pulse sensitivities on flip-flops.

Kenneth H. Olsen

dec INTEROFFICE MEMORANDUM

DATE June 12th, 1962

SUBJECT

TO Henry Crouse

FROM Kenneth H. Olsen

Sprague Electric is now advertising their capacitors for "Cordwood" packaging. These are their type 252C tubular ceramic capacitors. We are interested in the possibility of making "Cordwood" assemblies for our modules so that we can add many more components and possibly cut down on the assembly time. However, we are immediately interested in this type capacitor because it would be much neater and much easier to assemble in a module than the present Elmenco capacitors.

Will you find out how the price of these capacitors compare with the price of the present Elmenco capacitors that we use.

When the Sprague salesman is in the building, I would like to talk with him about their packaged circuits. They now have some small ones which they are making in Nashua which could simplify our modules.

Kenneth H. Olsen

cc: Dick Best
Bob Hughes

INTEROFFICE MEMORANDUM

DATE June 11th, 1962

SUBJECT

TO Bob Hughes FROM Kenneth H. Olsen

I was looking over some power supplies in the Production Department before they were inspected and observed a number of things which needed improvement. These probably would have been caught during inspection, but I will point them out to be sure.

The Tinnerman nuts on the transformer should be kept straight for appearance sake.

We always make a wire ground in addition to the chassis ground and never depend on the chassis ground by itself.

Many of the nuts are put on the fuses upside down. The rounded surface always on the outside.

We should only have one solder lug under a screw terminal except where it is necessary to do otherwise. When we make up our harnesses we should leave the wire without a lug and solder it when the harness is installed.

On the 722 units which are now in production, the metal washer on top of the power resistor is much too large and looks very uncraftsmanship like. The hold is almost large enough to lose the lock washer.

We should not use short pieces of spiral wrap to tie wires together. They should only be used for long runs and for short ones locing cord is best.

Kenneth H. Olsen

cc: Jack Smith
George Gerelds

June 11th, 1962

To: ALL EMPLOYEES

From: Kenneth H. Olsen

Subject: False Fire Alarms

On Friday someone used our new fire emergency phone number as a joke. This is a very serious thing to do. If anyone uses this number as a joke he will be immediately dismissed from employment at Digital Equipment Corporation. Making false alarms is considered serious enough to put people in jail.

We instituted this new dial emergency number as a safety feature for the personnel and for the plant. If it is misused, it will have to be disconnected and we would hate to lose this safety device.

Kenneth H. Olsen
President

INTEROFFICE MEMORANDUM

DATE June 11, 1962

SUBJECT

TO Dick Best
Jack Smith
Bob Hughes

FROM Kenneth H. Olsen

Malco makes a solder lug for etch boards which is much more rugged than the ones we are now using in our power supplies. I am ordering sample quantities of these to try out. The present lugs we solder on to are very difficult to inspect to see if the joints are really soldered.

Kenneth H. Olsen

INTEROFFICE MEMORANDUM

DATE June 11th, 1962

SUBJECT

TO Dick Best

FROM Kenneth H. Olsen

I suggest that you change Joe Gill's supervisor from Loren Prentice to George Gerelds. George is much closer to him and will be able to supervise his time much more carefully. Although you have not taken an active part in this area, I think it would be a good idea if you make this change because it is important to let people know who is boss.

Kenneth H. Olsen

INTEROFFICE MEMORANDUM

DATE June 11th, 1962

SUBJECT

TO Henry Crouse

FROM Kenneth H. Olsen

In the new flyer put out by Radio Shack on page 18, there is a motor listed which might be identical with the motor used in the floor fans we bought from Raytheon. This is a 1/12 H.P. motor with a 5/16 diameter shaft - 1-3/4" long. It is 4-3/4" outside diameter. It is a two speed motor with 860 rpm and 1100 rpm. Their stock number is H 95 L 520, price is $6.99 each.

Kenneth H. Olsen

dec INTEROFFICE MEMORANDUM

DATE June 11th, 1962

SUBJECT

TO George Gerelds

FROM Kenneth H. Olsen

There are two units which need labels and I would like to have you take care of this. I am not sure just who's responsibility this should be and there is a possibility that it might already be under way, but I am sure that you can figure it out.

The computer memory assembly now has the very homemade looking embossed labels alongside the Jones strip that supplies the power. We should have a very neat photographic label put in this place.

The Jones strips and the input terminals on the power control panels should have labels. We might leave them simply numbered and then have a stick-on label that lists where all the numbers should go, but we do need something on the panel.

Kenneth H. Olsen

INTEROFFICE MEMORANDUM

DATE June 11th, 1962

SUBJECT

TO Bob Hughes

FROM Kenneth H. Olsen

I should perhaps be embarrassed to admit that it took me several hours to figure out the label behind the new 722 power supply. I suggest that we immediately try this label out on several other people and if they don't understand it immediately that we throw away all those labels that we now have and make new ones before we ship any to customers.

I studied that label and walked away and came back a few hours later, studied it again, went away and came back later on and was ready to write a memo to you suggesting that 51 + 61 - 44 is more complicated than was needed and that we should simplify it to 50 + 60 = 44, but on my third trip I realized that it was 5 i + 6 i = 44.

Do find out if other people are as dull as I am on this point and if any of them are, I think we should not send this label out.

When we re-do the label we should also include the model number of the power supply and the frequency and the voltage tolerance. We should also include this information on the label behind the 749 power supply.

Kenneth H. Olsen

cc: Dick Best

INTEROFFICE MEMORANDUM

DATE June 6th, 1962

SUBJECT

TO Henry Crouse
Loren Prentice

FROM Kenneth H. Olsen

We should be sure that during working hours we always have someone in the receiving room in building 5. There are three young boys working in that area now and I should think they could work out a schedule so that there is always someone there.

I suggest that we have a spring return door on the entrance to our shipping dock and that after hours we always keep this door closed even though we may not lock it. Having this shipping area wide open to the loading dock gives an impression of casual security. When Raytheon moves out, we can do something more permanent, but right now I think this is an obvious first step.

I think it would be a good idea if Loren Prentice asked the sandwich people how they get in and out of the building. I am afraid that they are one of the weak links in our security.

Kenneth H. Olsen

dec INTEROFFICE MEMORANDUM

DATE June 5th, 1962

SUBJECT Name Tags

TO Bob Lassen

FROM Kenneth H. Olsen

We are learning a lot about the problems of having name badges for our people. It is important that we take care of the problems as we learn about them or else the personnel will lose respect for the badges. I think it is almost an emergency that we get enough temporary badges for all the people who forget them and contractor badges for all those who should have them.

I think that we should have separate badges for temporary situations and for those who forget their badges. Lincoln Laboratory had a special badge which was made in orange dagglow which said, "I forgot my badge!", and had a number. I think this might be a good idea.

Above all, I think we should go ahead and order enough badges so that we can take care of all of these.

Be sure to give a badge to our Belmont Water man, our food dispensing people and any one else that comes in.

Kenneth H. Olsen

INTEROFFICE MEMORANDUM

DATE June 6th, 1962

SUBJECT

TO Henry Crouse

FROM Kenneth H. Olsen

We have not done a good job of supervisoring our food suppliers because we don't have anyone who feels responsible for it. This might very well come under your department and I would like to have you consider the possibility and then let me know what you think. This should not take much time, but someone should feel responsible and complain when the service is poor and, in general, take responsibility.

Kenneth H. Olsen

cc: Stan Olsen

dec INTEROFFICE MEMORANDUM

DATE June 6th, 1962

SUBJECT

TO Ben Gurley

FROM Kenneth H. Olsen

As Manager of the Computer Division there are several details which I think you should look into before we approach the end of the month. Before we close out our books, at the end of the year, we should put aside a certain amount of money to pay for the patent liability which we have incurred. Maybe we should consider $.02 a bit which is what people are asking for the memory, but I think that you should formally make a proposal.

We also have obligations in maintenance. There should be a certain amount for those which are in the guarantee period and a smaller amount for those which are past the guarantee period. We should have enough information to justify this amount.

It is very much to our advantage to make this contingency fund as large as possible because we don't pay taxes on it and it is also very sound business to subtract it from the apparent profit if we are going to spend it later.

Kenneth H. Olsen