digital INTEROFFICE MEMORANDUM

TO: Ken Olsen

DATE: 14 Aug 72

FROM:

DEPT: '1Ø Engineering

SUBJ: '1Ø Planning

I'm worried. Many other engineers in '1Ø land are uneasy.

We have built and are shipping KI1Ø's. We have abandoned the RS1Ø fast, large drum project after spending $25Øk more or less. Now we are abandoning the RF1Ø/RPØ4 project (large disk pack, 333Ø technology) after getting to the point of being ready to wire-wrap a prototype ($1ØØk more or less). The RS1Ø was to relieve the major performance bottleneck in '1Ø systems - after its abandonment, the RF1Ø was revised to control drums as well as disks. These projects have been abandoned in order to get personnel to work on the KL1Ø cheap processor which is now going to have an integrated disk control (actually a Gordon Bell bus control).

The first problem as I see it is that we are abandoning any further sales in our traditional markets (large university computer centers and computer research departments; multiple CPU in-house and commercial computer utilities; and banking, social science and industrial modeling. This action also cuts into our ability to sell in our more recent markets of typesetting, data management and inventory control systems, and data entry and processing. All of these markets require relatively large and growing amounts of data storage which the competition is now or soon will be providing at RPØ4 prices. We are abandoning these markets by providing no growth in disk pack systems storage capability or performance per dollar until the KL1Ø is available as a disk controller (2 to 3 years), by abandoning the use of the 22-bit memory address capability of the KI1Ø (as no controller will now use it), and by failing to provide larger,better transfer rate "drums".

The second problem is that we seem to be chasing after a "low price" market where the system price goal is $2ØØk and where we will supposedly sell 1ØØØ to 2ØØØ systems per year. However, after inquiries to John Leng, Bill Kiesewetter, and others in the '1Ø product planning and marketing groups, no answer seems forthcoming to the question "in what markets (applications) are we going to sell these machines?" I don't believe, on the basis of my view of the market, that this substantial market exists in any form which is capturable by low price alone. Every market of reasonable

size is going to require a direct hardware and software attack in order to penetrate it. No such attack is evident to me. All of these plans seem to be based on rather vague data on total projected EDP market size in (say) 1975 -- mostly purchased, industry wide forecasts which are already substantially in error and which seem to have little relevance to DEC.

The third problem is that in the interim before the KL1Ø is shippable with its integrated file system, RPØ4's, and new (small, efficient) software, the product line is stuck with the existing high cost, low performance equipment which is more and more poorly suited to our existing markets and too expensive for the "new" markets. This will lead to a sales and cash flow crisis in about one year in my opinion.

The forth problem is that the constant turning on and off of projects (RF1Ø, RS1Ø, MS1Ø, KL1Ø) for no apparent reason or for reasons which do not withstand scrutiny by the system wizards and which are seldom mentioned to the engineers involved is causing a serious morale problem with productivity going rapidly toward zero.

I suggest that the whole '1Ø marketing plan (if there is one) be subjected to a critical review both by the '1Ø system wizards as well as their managers and by people outside of the product line. Such a review should delve into the facts and assumptions on which the plan is based and verify the plausibility of the assumptions. If the people (hardware and software) doing the design don't know what applications they are trying to sell to, the resultant product will not be very salable.