

November 18, 1974

Dr. Harry E. Pople  
Machine Intelligence Systems Laboratory  
University of Pittsburgh  
401 Bruce Hall  
Pittsburgh, Pennsylvania 15260

Dear Dr. Pople,

Dr. Carl Brewer referred your letter of October 28th to the meeting of the SUMEX-AIM Advisory Committee that was held here on November 14th. I have been instructed to reply in the following vein.

We are of course eager to provide every reasonable support that we can for your project but must of course comply with the restraints of limited resources that can be anticipated as the national program develops. You should have the following information for planning purposes. We will do whatever we can to relax these constraints and to facilitate the optimum utilization of the resource in ways that may best compromise your requirements and those of other users.

Dr. Bobrow advises us that the modifications of INTERLISP mentioned in your letter have been or shortly will be implemented. You may wish to contact him directly about any problems that may arise in that area.

We think we can assure you a facility that will permit you to maintain the level of activity you requested for the initial period with the following provisos: (1) that during heavily loaded periods you will not ordinarily have more than one user ~~exercising~~ a major LISP job. Of course, there may well be additional ones doing editing and debugging that will not place quite so heavy a demand.

(2) We can allocate 2,000 pages (1 million words) of disc space with a probable availability of the remaining 2,000 pages requested but this is still to be worked out.

(3) As to CPU utilization, you should plan for a possible constraint to approximately 1/2 hour per day, during prime time, with a reasonable possibility but no guarantee of expansion during lightly loaded or off-peak periods.

(4) Terminal connect time is not at this time a constrained resource.

Our advisory group believes from its own experience that on the SUMEX machine 8 - 10 hours of connect time is unlikely to require more than the 1/2 hour of CPU indicated. We will be studying this situation and will be glad to have the benefit of your own further experience in working out future adjustments.

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Your letter also refers to requirements for 1976 that could result in a load of 4 - 5 hours of CPU time per day. Unless we can implement a major augmentation of the system which may be possible in due course but is unlikely by so near a time, I do not think it will be physically possible to comply with a request of that magnitude. As your work approaches the evaluation stage, we may have to reexamine the congruency of the research and development mission of SUMEX-AIM with the larger scale evaluation and demonstration objectives indicated in your proposal. Believe me, we all understand the difficulties of making these kinds of decisions and if any of this appears to be negative, it is only in the sense of trying to meet a set of often contradictory or at least conflicting requirements.

As far as our accounting statistics tell, your current behavior on SUMEX falls very comfortably within the indicated constraints and you perhaps really need not concern yourself about a gradual build-up of activity, as we will be implementing both policies and algorithms to try to soften the harshness of the realities of scarce resources. (We have to be careful of the psychological trap that may result from the fact that the system is only just beginning to be implemented for national use).

We hope that it will be possible for you to pursue your principal research aims despite these limitations and that we will continue in a cooperative mode to find ways of solving the problems that beset all of us.

I will be in touch with you later from time to time about other ways in which we may be able to be of mutual help and certainly welcome you and look forward to a fruitful association.

Please take advantage of the SNDMSG facility on SUMEX for communication, or the mail or the phone or whatever best suits your convenience for staying in close touch with us.

Sincerely yours,

Joshua Lederberg  
Principal Investigator

JL/rr

Enclosures

cc: Dr. Carl R. Brewer

SUMEX-AIM Executive Committee