Protocol for Organization of the AIM Community

SUMEX proposal March 19, 1973

We attempt to reconcile the divergent impulses of sustaining (1) the accountability of the AIM facility for a fair response to national needs, and (2) the responsibility and authority of the principal investigator for the intellectual productivity of his local program and of a community of close collaborators.

In part we have responded to these concerns by specifying a division of the SUMEX facility to the local DENDRAL project and to AIM respectively. As discussed already, the 50% allocation is based on the initial configuration, (2) includes latitude for system effort and for informal and preliminary associations, and (3) would be reevaluated (i.e. negotiated between AIM and DENDRAL) at the point of any augmentation of the facility. We do not imply that DENDRAL would have an automatic claim to 50% or any other moiety of increases justified in terms of demands from the AIM community. Alternatively, DENDRAL should be allowed to compete without prejudice, for such incremental facilities.

The National Committee (NCAIM) should have the final authority for the selection of AIM users and for the
disposition of the SUMEX resources designated for that community. This includes not only the machine cycles but also a prorata part of the personnel effort listed on Page 92 (Many of the listed individuals serve at a system level, the needs of both sectors.

The Principal Investigator is responsible to the NCAIM for fulfilling the contractual obligations of sharing the SUMEX resource. He will report regularly to NCAIM, and in turn will report to BNB concerning the adequacy of fulfillment. BNB in turn has the right and responsibility to investigate, even interrupt, the funding of the SUMEX resource in the event of an adverse report; indeed it would have the right to recover damages (as it can with other grants) in the event of flagrant violations of the grant instrument as accepted by the University.

The deterrence of such an adverse report is a powerful and obvious incentive to assure compliance with mutually agreed objectives.

In discharging his responsibility the P.I. will appoint a Facility Director and a Liaison Coordinator who are instructed to comply with these policies and to maintain close communications with the users and with NCAIM. The P.I. will not be a passive instrument but will take an active role in recruiting candidate users for admission to the AIM community.
and in sustaining a high level of communication within and among them.

Major system software policies will be established by the MCAIM, keeping in mind not only the immediate impact on the DENDRAL and AIM sectors, but their overall effect on the general development of AI research. Likewise, the AIM effort will seek to recruit other centers to cooperate (without making long range commitments like SUMEX) in these software efforts over the net, and to share ad hoc backup and other machine resources.

We believe that many more potential users can be found than we have identified as yet -- and indeed who will reveal and defend their projects only after the authentication that a service will be provided. We will not, therefore, preselect the user group until the facility has been advertised and proposals have been formulated, although we have identified some promising candidates. Some of the conflict-of-interest difficulties that will attend this process are obvious, and are an important reason for leaving the final selection to a well-defined process that itself has been reviewed by the Study Section and the NAHRE.

The criteria for user selection might be ad hoc, relating essentially to the originality and competence of the proposer, and the relevance of his proposal to the general mission of
A.I. in Medicine. Indeed, this parallels what study sections generally must now do, which comprises much more judgement than algorithm.

However, the mutual compatibility or rather reinforcement of the efforts of the prospective users should be an important criterion. Compatibility may be needed for the most efficient cooperation, e.g. at the level of languages; complementarity will add to the overall power of the repertoire of the subprograms and conceptual approaches available to the group. In addition, a number of other low-intensity and short-term users might also be coopted who simply promise a high return of useful research in proportion to the resources (computer cycles, administrative, and intellectual attention) that they consume.

The initial user group should be selected by a 7-member Organizing Committee whose membership can be designated as follows:

2 Members -- to be named by BRB

Alan Newell -- past member of the study section
Selfridge -- past member of the study section
Langridge -- past member of the study section
Feigenbaum
Amarel
The OCAIM will advertise the facility (with active staff support from SUMEX) and review proposals 90 days later. This interval will be needed anyhow to check out the network service to a reasonable level of utility to the projects. At that time, OCAIM will designate the initial user group, the ground rules of their relationship to SUMEX, the initial center for NCAIM, and the initial membership of NCAIM. The ongoing committee, NCAIM, may now include users whose role in AIM has been previously reviewed by the organizing committee. We propose that NCAIM include six members:

1 - representing SUMEX
3 - representing other users
2 - from OCAIM or other non-user personnel

(The details of these numbers are of course negotiable.) We need a committee large enough to retain a representative quorum despite occasional absences, small enough to meet often (6 to 8 times per year) and decisively.

NCAIM would rotate its membership, replacing two each year, by nominating a slate for approval by BRB.

Besides continuing the process of user selection and monitoring service standards and accountability of SUMEX, NCAIM would also establish other working relationships at various levels to advise SUMEX management on its programs of
We believe that NCAIN will properly recruit a considerable group of users who will soon consume the available resource. NCAIN will then have the responsibility of dealing with the P.I. in planning the steps needed for the expansion of Serox, or of initiating other centers to serve differentiated user groups. Alternatively, this initiative may arise independently at other foci. Some centers may reach a scale that would justify the organization of independent cooperatives analogous to those that manage some of the national laboratories.

In our view, this style of organization is less appropriate when 1) a local group plays a special role in the justified usage and the intellectual leadership in the resource, and 2) the scale of the collective operation is still compatible by its administration from within a university department. These criteria may be satisfied by AIM at a later stage, but are not in sight at the present time.