

To: VLBA Computer Coordination Group
From: Craig Walker
Subject: Review of 30 April 1985 meeting.

Topics on the agenda were:

- 1.) Standard form for external representation of dates, times, and angles.
- 2.) Software management. What is the status of the investigations of commercial systems. How can a system on one computer (eg DEC MMS) help manage software for another computer (eg Motorola 68000).
- 3.) Any comments on the Architectural Design for the VLBA Correlator that was recently submitted by the Correlator Group. Especially note the computer related sections such as Section 5 on Operations.
- 4.) Operator interface. Note Tim Pearson's mail on the use of VAX screen management utilities. There is some discussion of this in the Architectural Design.
- 5.) Continuation of the discussion of coding standards.
- 6.) Graphics.

Attendees:

VLA: Walker, Clark, Ekers
CV: Benson, Burns, Cotton, Romney
CIT: Pearson, Fort

Standard form for dates etc.:

There was a rather lengthy discussion of this topic. Burns noted that Rick Fisher is trying to coordinate the various NRAO on-line systems so we should see what they have decided or cause the issue to be decided soon. Clark will contact Fisher and then propose a scheme based on that contact and on the discussion at the meeting. This is a trivial issue but a choice must be made.

Someone from this group should be on Fisher's group. Burns will look into details.

Software management:

There was little to report here. Pearson has ordered documentation on the DEC MMS system but it has not arrived despite a promised delivery date of April 1. From what little is known of the system, it should be able to handle the VAX based operations on code for other machines.

Architectural Design for the Correlator:

The nature of the time stored with the data needs to be considered further. Clark pointed out possible problems with offsets from a run start time (what is a run - some programs last for years). To what precision does time need to be kept? Benson will ask the NRL group to consider this in their long awaited document on astrometric needs. There seemed to be some general sentiment in favor of using absolute rather than offset times (although this might just mean offsets relative to day or year boundary rather than a start time).

Operator interface:

Clark has looked briefly at the DEC screen management system that Pearson suggested be used. He likes what he has seen so far. It is likely that the system will be used. It will be necessary to identify a subset to which any programs that might run on the 68000's will be restricted and then to provide equivalent routines for that cpu.

It is still not entirely clear at what level coordination is needed on screen details. Clark will give fair warning when a decision on screen style is needed. Meanwhile, the suggested screen systems circulated by Clark at the Socorro meeting (VLBA Memo 431) and more recently by Ewing (Memo 439) should be reviewed.

Coding standards:

I reported that I have decided in favor of documentation being kept inside source files. There will be delimiters marking the portion of the file that is to be used for external documentation. I see no reason to deviate from the AIPS scheme. We should be able to use the AIPS software that produces documentation files. More details on standards for the contents of the documentation portion of the files is needed - this presumably be in a modified version of Clark's standards document. There seemed to be agreement that the declarations of any subroutine arguments should be included in the portion of the file that would be extracted for documentation.

A more serious question is exactly what do we want for an overall indexing ('shopping list') scheme. There is general agreement that a few lines of machine identifiable information should be in each program that can be used to produce some sort of overall index of routines. Keywords probably will be involved. AIPS has a similar need and any effort in this area should be coordinated with the AIPS group. Pearson promised to generate an initial concept (and eventual code!) for a system. He will distribute it by VAX MAIL to some members of this group and the AIPS group.

Graphics:

Clark estimates that it will be about a year before any decision on graphics standards will be needed. He favors having all graphics confined to off-line programs that run on data files. A possible way to do this with minimal programming and a lot of flexibility is to interface a PC to the data base and use commercial software (eg. Lotus 123) on the PC for displays. It was noted that GKS is now available for all languages on the IBM PC if we should choose to use GKS.