

To: VLBA Computer Coordination Group
From: Craig Walker
Subject: Review of July 2 Meeting

Present: Clark, Walker, Hunt, Benson, Romney, Pearson

I: Software Management.

The documentation on the DEC MMS and CMS systems has not arrived at NRAO. The M/C group needs to get started. Therefore Clark intends to implement the cyclic update scheme. The DEC systems will be considered when the documentation arrives and may be added on top of the cyclic update at a later date.

II: Coding Standards (including in-code documentation).

There was agreement that something similar to the documentation scheme recently circulated within the group by Clark is ok. Clark will write up a document proposing standards for both in-code documentation and for code by Aug 1. This will be an action item. The program for extraction of the documentation has been written in C on the VME 10 but has not been tried on the VAX because the C compiler has not arrived from DEC yet.

Clark noted that the in-code documentation scheme in use on the pipeline is so FORTRAN specific that it is not of interest to us.

III. Data Bases.

Jon Romney has not been able to finish his Data Bases document but promises to have it by next week. Clark would like to have the data base decision before the September design review but agreed with the group to make it at the review. The choice affects the size of the computer needed for M/C and he would like to order that computer by the beginning of 1986. We added the following action item to the two on this subject that are already in the action list:

Data Base decision Sept 12 1985 Romney

Hunt mentioned the relational data base machine that is being used at the Space Telescope. It seems that the software that is to be used does not depend on the special hardware - it could also run on a VAX. The system provides utilities to access the data base but does not include, for example, complete routines for displaying one parameter against another. The hardware costs \$50k to \$100k depending on options with the higher figures more likely for a useful machine. Jon Romney hopes to visit the STSI sometime soon to discuss data bases.

There was a short discussion of the option of going out for bids on the data base system as is being done by the AT. There was general

agreement that we should survey the market and try to find an off-the-shelf system that will serve our needs.

IV. Other

Gareth Hunt suggested that we consider the use of a program design language (PDL) such as is being used by the Space Telescope. Programs are first written in the PDL, then reviewed for functionality, and then coded in the computer language of choice. The PDL is typically a factor of 10 more compact. This concept was new to the group (although familiar to some of the members) so there was some uncertainty in how to respond. Gareth will send some documentation to the members of the group and the topic will be discussed next time. An impression was that the review of the software design was the important part of the scheme. There was some skepticism that on the value of the PDL concept for the relatively small and isolated programming groups working on the VLBA on-line systems.