12 Mar 1984

to: Don Retallick

From: R. Payne

Subject: Comments on pending projects.

Here is a short list of tasks which I propose to work on for the next few months.

SGP MEMONO. 53

The Wim Brouw mapping seems to be working at the moment. I propose to leave it alone for the next few weeks and see what problems if any arise. There are two changes which I would like to make but they can wait for a few weeks. The AIPS grid correction routine can be reorganized to calculate a symmetric grid correction vector. (one day if all goes well). The use of the second disk for map output. There are no application programs which allow a wildcard for the disk specification and users may find the organization inconvenient if part of their spectral line map go on different disks. We need to make use of the multiple disks on GRIDER for map output. As I look at the MAPCON orgainzation I may come up with some way of using the second disk which is transparent to the user.

The MAPCON program does not know about disk space. It happily schedules tasks even when there is no more disk space and they simply all go into the bombed queue. There are also problems in interpreting the priority of mapping tasks. The current system is designed around the old mapping tasks and does not calculate priorities correctly for SORTER datasets and Wim Brouw mapping. I would like to spend the next few weeks looking at MAPCON and maybe reorganizing it a bit. The MAPCON and PROBE are associated tasks and changes will be made to both. It is my habit of removing the use of PRE whenever I work on a task but I may not change MAPCON and PROBE.

As I work on various MAPCON utilities SPACE, MAPCHK for example I will convert these task to MAPIO calls. I also try to convert them to the COMMAND SCANNER interface whenever possible.

The conversion to the new catalog format depends on the updating of all tasks to MAPIO. This is still in progress. The outstanding problem is FITS. (I estimate 3 weeks of my time to convert FITS to MAPIO.)

Other desirable projects:

DISPLY could use some more map statistics and contouring programs. (1 month).

CLEAN for big maps could be significantly improved maybe as much as a factor of two. (two weeks)

 $\ensuremath{\mathsf{CLEAN}}$ can be combined with the Wim Brouw mapping much as the AIPS $\ensuremath{\mathsf{MX}}$

program now works. (6 weeks probably 2 months of my time) (I believe this is the most important project I could be working on but since there is no one else attending to MAPCON and MAPIO this will probably be postponed for a while.)

Other interesting projects:

VM tasks using the transpose memory. (1 month)

SELFCAL on the pipeline using either time-baseline displays or some variant of the UVFITS program. (easily 2 months)

2