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To : Pipeline Software Group
From : R. Payne
Subject : Exercising Wim's Mapping Software

Just a few notes on the current setup on SORTER for making maps.

The most useful program is called GTEST. This is a direct connection to Wim's routines. It assumes a dataset in the area from which it is run. There are two acceptable dataset types. The dataset requires a MIX record, an INX record and a GAI file. These files are defined as in the MAPPER system. In particular GTEST will look for files named MY.MIX, MY.GAI and MY.INX. There are two possible formats for the visibility data. GTEST will look for a file called MY.VIS and if it finds one will assume that it is dealing with the old style MAPPER dataset. If it can't find such a file it looks for a new style SORTER dataset. From the Mix record it gets the user id and looks for a user catalog of datasets. It searches this catalog for an entry matching the data selection parameters in the MIX record. If it finds the match it will attempt to use the new style dataset defined by the catalog entry. This includes a PCA and VIS file.

After processing the first MIX record GTEST will ask to continue. Continuing at this point simply causes GTEST to process the next record in the MIX file. It does have one effect and that is to rewrite the first entry in the MIX file with the entry currently being processed. If one does not continue but simply exits the MIX record remains the same and program can be repeated any number of times.

The MAPCON connection.

GRIDER mapping software can be run from the DEC10 using the MAPCON system. Run MAKMAP as usual on the DEC10 setting the data selection and mapping parameters. The mapname command must set the machine name to SORTER:'NAME'. This directs the request to SORTER instead of MAPPER. The GRIDER mapping software is installed as the experimental mapping task on SORTER so by setting the version to 'EXPERIMENTAL' the user will get Wim's mapping routines. Using this procedure it is possible to direct any DEC10 mapping request to Wim's package. In particular it is possible to send DEC10 spectral line datasets directly to SORTER. Wim's routines can do a maximum of 31 channels simultaneously.

The MAKMAP in [11,171] has several commands not in the system version of MAKMAP which may be useful. It has a BASTIM command which says to grid the data onto a time-baseline grid instead of the usual u v grid. BASTIM will accept 'NO,YES,ALL' as inputs. YES turns on the time baseline gridding and says to use the

cellsize parameters to scale the time axis. ALL says to scale the time axis to include all of the data.

The TYPEMAP command works as usual and so type MAP will generate the usual Fourier transform of this time-baseline gridded data. TYPEMAP amp or phase or cover is usually what's wanted here.

This version of MAKMAP has an additional GO option. GO GRIDER which sends the database over as usual but tells the mapping program to look for a new style visibility dataset. It assumes that the appropriate user catalog and associated PCA and VIS files are in the [300,20] area.

In general I use MAKMAP and MAPCON to get the database over to SORTER and then I copy the database files into the MY.* files for running GTEST. The CONCON program can be used to turn off the MAPCON mapping while debugging is going on and it also allows the user time to copy the database. MAPCON usually puts the VIS, GAIN and INDEX files on DB1:. The Mix file appropriate to GRIDER is put in a file called REQ on DB0:. MAPCON can also be used to recycle requests however the GRIDER routine may have rewritten the first entry in the MIX record.

The MAPCON version of CLEAN on SORTER will not allow the use of beams instead of transfer files as input. As I have time I will change this. Type XFR in Wim's system makes a map, beam and amplitude map simultaneously.

There are still a number of logic and other errors in Wim's package. Even the datasets which it usually maps correctly will at other times be incorrect. Some modes of the program have never been executed much less debugged.