Field System Future Plans

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FS 9.7.8 (early Summer 2005)

- Minor bugs fixed
- Improved GNPLT version by Andrea Orlati
- Nutation offset support in VEX parser
- Mark5 support for “continuous” tape schedules: RDV schedules
- Field labels designed for disk packs
- Other small items generated by this meeting

FS 9.7.9 (late summer 2005)

- S2 DAS Support in DRUDG
- Eliminate use of some mk5=… commands for normal operations
- Phase-cal extraction support for Mark IV decoders?
- CHEKR monitoring of Mark5
- Update Mark 5 “Remaining Capacity” display while recording

Longer term development items I

- Documentation Update
- Improve prediction of disk pack change times
- Pointing software clean-up
  - Eliminate redundancies in pointing configuration information by introducing a source coordinate database file and reorganizing point.prc and ctlpo.ctl (aquir control file).
  - Documentation clean-up to reflect new procedures and utilities
- Improved Tsys
  - Most items completed
  - Post processing program to generate AIPS (ANTAB) format TSYS files from Cormac Reynolds
  - Periodic firing of calibration diode with flagging needed
- Convert from fort77/f2c to g77
  - Will allow use of source level debugger
  - Must maintain compatibiltiy with f2c for older distributions

Longer term development items II

- TNX ("Thanks") command expansion
  - This command currently provides a syntax to eliminate the display of errors that the operator knows can't be fixed and should be ignored
  - Will be extended to allow different error messages with the same number and two letter code to be distinguished
  - Will not allow an error that has not occurred to be masked off.
- FSVUE
  - Integrated X client (Tcl/Tk) FS Operator Interface for FS
  - Second iteration now, uses client-server model
  - Allows multiple "Operator Input/Log Display" consoles for remote operation
  - Initially add-on, eventually main interface
  - Includes log display (scrolling doesn't jump on new input) and operator input windows
  - Buttons to allow you to examine logs, help, and run various utilities: monit, logpl, msg, and others.

Longer term development items III

- Band changes
  - Band configuration procedures added to set-up by DRUDG.
    - The DRUDG control file will be expanded to include a table of station defined procedures that can be used to set-up local station equipment for a band. These procedures can also be used manually by the operator as needed. Note that use of the existing SAVE_FILE command can be used in these procedures and INITI to recover the receiver set-up between FS terminations and restarts.
  - Add a command LOCONFIG.
    - This will be used after the LO= commands in the IFD set-up procedure. This can be used as trigger to start configuring the Los, if doing so in each individual LO= command might cause problems. By default, LOCONFIG will be a NO-OP, but it can be defined locally and do whatever is necessary for LO configuration in one step.
  - CALON and CALOFF SNAP variables.
    - This intended to deal with stations that have different cal control methods for different bands. The idea is that variables will be introduced into SNAP, specifically two: CALON and CALOFF. These can be defined by the band set-up procedures described above and used as $CALON and $CALOFF in procedures when the noise diode needs to be controlled.

Additional Future Items I

- IF patching automation for Mark IV racks
  - EVN has hardware design, but not implemented in field yet. We will need one relatively simple SNAP command to support it:
    - A special version of PATCH and a way to control which version is used.
- Mark IV decoder support
  - This is beyond the phase-cal monitoring mentioned above, mainly a few SNAP commands to control the decoder manually. Most of the effort here is actually divining what is needed and developing documentation

Additional Future Items II

- Phase-cal control monitoring from VEX schedules
  - Mark IV decoder support already planned
  - Mark 5B support expected when device available
  - AIPS format file generated from post-processing
  - Support for VLBA digital switch board