Field System Topics

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FS Linux 8

- Current standard
  - Based on Debian “lenny”
  - Uses RAID1 for more robust operations with two disks
  - Back-up scheme with three disks rotates disks periodically
  - Supports a “spare” computer, with rotation scheme
  - Upgrade path from earlier systems is:
    - Clean install
    - Copy /usr2 partition, etc. to new system
  - Install and upgrade thoroughly documented
    - `/usr2/fs/misc/FSL8_*`
    - `atri.gsfc.nasa.gov:/docs/FSL8_*`
  - GPIB support
    - Open source driver does not support older devices
    - NI GPIB-RS232 device
    - USB-GPIB devices supported
- FS Linux 9, based on “squeeze” is next
- Older systems should use a Router/Firewall for improved security
  - Inexpensive, <US$100
- Old hard disks (> 5 years) should be replaced

Current Status - FS 9.10.4

- Logpl updated with Python version
  - Faster, more flexible
  - X-Y plots
- Plotlog expanded to include:
  - Pcal Amp vs Phase with Tsys normalization
  - Improved Phase difference plots
  - K5 Pcal plotting
  - grep style plot selection
- Minor bug fixes

FS 9.11.0 (Summer 2010) I

- Slow disk warnings
- RXG file related:
  - New rxgfile SNAP command to allow RXG file updates without restart
  - Logging of RXG file identification information for better accountability
  - Two Trec (LCP and RCP) values in RXG files
- New gnplt
  - Python based
  - Much faster
  - Bug fix: handles two single polarization receivers in one log
- C++ include file changes

FS 9.11.0 (Summer 2010) II

- 30 minute periodic “BEOB” procedure in place of “MIDTP”
- Improved rack=none set-up comments
- LO_CONFIG command
- Routine sampling of PCal for geodesy experiments
- RDBE support
- Mark 5C Support
- Holography support control program
- Satellite tracking support
  - Fixed Az/El or RA/Dec.
  - Empheris generation for use by antcn

FS 9.11.1 (Fall 2010) I

- IDL2RPC Remote Interface
- Automatic/Continuous PCal extraction with Mark IV Decoder
  - Extracts all tones from all recorded channels
  - Global control from *drudg* skedf.ctl control file
    - Able to use VEX specified extraction
  - Further expansion of *plotlog*
    - Multiple tones per channel
    - Fit sinusoids for frequency one and two in 2π phase
  - AIPS format file generated from post-processing
  - Can be expanded for Mark 5B
- Flagging for Cal and TPZERO
- VEX2 support

FS 9.11.1 (Fall 2010) II

- DBBC
  - Client/server model?
- Multiple Mark 5 recorders
- Other possibilities:
  - CHEKR monitoring of Mark5
  - Update Mark 5 “Remaining Capacity” display while recording
  - Convert from fort77/f2c to gfortran
- 80 Hz Radiometry

FS Priority List from Previous Meetings

- Separate LCP/RCP RX temperature in .rxg files
- LO_CONFIG command
- Slow disk warning
- 80 Hz Radiometry
- Periodic monitoring (*chekr*) of Mark 5
- DBBC support
- Update Monit/Expanded Status Reporting/*erchk*
- GNPLT Update
- …