Field System,
Status and New Features

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FS Linux Distribution

- FSL9
  - Current standard (still, but …)
  - Based on Debian `wheezy`
  - Has some minor serial issues, but so far we have solutions
- FSL10
  - Next standard
  - Based on Debian `stretch`
  - Beginning of FS 64-bit architecture support
    - 32-bit FS will still be available
      - FS source will be unified 32/64-bit
  - Availability TBD, hopefully this summer

Current Release – FS 9.13.0

- Includes FS display server, strongly recommended
  - Allows simultaneous remote displays
  - Killing the FS accidently is much less likely
- *Ad hoc* support for `sched` "staggered start" mode
- Full support for dual VSI outputs for DBBC2 with FiLa10G, also:
  - VSI1 support for `geo2` mode
  - VSI2 support for `wastro2` and `geo2` modes
- Full support for all allowed bit rates for VDIF recording with `jive5ab`
- NTP, if available, is now the recommended way to manage FS PC time
  - Use `computer` time model in `time.ctl`
  - Formatter time is still monitored.
  - Recommendations for reliable NTP configuration are in
    - `/usr2/fs/misc/ntp.txt`
- Many other improvements and bug fixes, for full details see:
  - `/usr2/fs/misc/fs9130up.txt`

Soon to be released – FS 9.13.1

- Finished:
  - Support for DBBC2 DDC v107
    - Includes 32 MHz channels
    - DBBC2 `vsi_clk` rate setting and checking
- Possible:
  - Logging of active `.rxg` file data.
  - Met. sensor height information logging.
  - More digits in `gnplt` y-axis labels.
- Other small improvements

VGOS Branch – FS 9.12.13

- ◆ Includes FS display server
- ◆ DBBC3 support
  - ⊕ Radiometry: `fivpt`, `onoff`, and Tsys
    - Continuous and non-continuous calibration supported
  - ⊕ `bbcnnn` commands, *nnn* from `001` to `128`
  - ⊕ `ifx` commands, *x* from `a` to `h`
  - ⊕ `iftpx` commands, *x* from `a` to `h`
  - ⊕ Not yet:
    - DBBC3 `drudg` support
      - – Expected with merge into main branch
    - DBBC3 Time setting/monitoring

Summer Development Plans

- Unify into one version:
  - Main branch, FS 9.13
  - VGOS branch, FS 9.12
  - Add `drudg` DBBC3 support
- Make source 32/64-bit compliant
- We need testing help for the new versions.

Other features that are coming …

- `git` version control
- TUI (Text User Interface)
- Web FS clients
- Periodic Satellite Commands in Az-El and RA-Dec
- More mature RDBE-G, Mark 6, UDC, and VGOS observing support
- VEX2 support
- Ethernet/serial converter support
- Ethernet/GPIB converter support

Also coming …

- 30 minute periodic `beob` procedure in place of `midtp` for periodic monitoring functions
- Improved rack type `none` set-up comments
- Source scanning on the fly
  - Improvement in `fivpt` for antennas that can scan in rate
- Band switching

Conclusion

- It would be very helpful to have:
  - Feedback on bugs that are occurring in the field
  - Input on what features are still needed or need to be changed for DBBC support
  - Any other requests …