
Field System, Status and New Features

Ed Himwich, Dave Horsley,
Jonathan Quick

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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 accidentally 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 `fi_vpt` 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 ...

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