Field System Status and New Features

Ed Himwich, Jonathan Quick, Dave Horsley, John Gipson

TOG, December 13-14, 2023, Piwnice, Poland

FS Linux Distributions

- FSL11
 - Current standard
 - Based on Debian Bullseye
 - LTS expected until June 2026
 - 32- and 64-bit support
 - Improved RAID support
 - gfortran is stricter
 - python2 support is weak (no numpy)
 - Expanded hardening for IT support
 - Requires FS 10.2, which should be available soon
 - 10.2.0-rc2 is available now
- FSL12
 - Φ ...

FS 10.2.0 – About to be released

- Expected to be released this month
 - # 10.2.0-rc2 is available now
- Support for FSL11
 - FORTRAN typographic changes
 - Handling of hex/octal/binary constants, etc.
 - All python scripts are converted to python3
 - python2 versions are still available
- Support up to 16-character experiment names
- DBBC3 support is now roughly complete
- Display server shuts down on FS terminate
- plotlog handles RDBE and DBBC3 log data
- streamlog utility to stream log and display data
- See the final update notice for all the changes (soon):
 - https://nvi-inc.github.io/fs/releases/10/2/10.2.html
 - Currently at:
 - https://nvi-inc.github.io/fs/rc2/releases/10/2/10.2.html
- You must install FS 10.1.0 before upgrading

FS 10.2.0 - Expanded DBBC3 Support

- DDC E firmware
- Firmware versions:
 - Up to v126 for DDC_E & DDC_U
 - Up to v125 for DDC_V
- USB/LSB TPI values are now reported "unswapped"
 - Environment variables are available to disable
 - Needed for older firmware versions, particularly for DDC_V
- Legacy T_{svs} is now supported
- Averaging and filtering continuous T_{svs} is supported
 - Filtering uses colors in the monit? display
- Multicast time-out detection improvements
 - Time-out increased to 1.45 seconds
 - After the first time-out
 - Shorten time-out to 1.00 seconds
 - Report in a 60 second summary format
- Environment variable to set interval for incorrect firmware error

FS 10.3.0 – Coming in 2024

- Support for R2DBE
- Support for chopper wheel T_{sys}
- ...