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# Field System Topics

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# FS Linux Distribution

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- ◆ FSL8
  - ⊕ Current standard
  - ⊕ Based on Debian “lenny”
  - ⊕ Out of support, but apparently still installable
- ◆ FSL9
  - ⊕ Currently being tested
  - ⊕ Based on Debian “wheezy”
  - ⊕ Should be available in a few weeks.
- ◆ Prologix Ethernet GPIB Controller
  - ⊕ Less expensive, US\$200
  - ⊕ Some success with Legacy GPIB devices
  - ⊕ Replacement for NI RS232-GPIB converter (which has some reliability issues)

# Current Release

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- ◆ FS 9.11.4
- ◆ Includes:
  - ⊕ Many fixes to DRUDG for wider/mixed BWs at other stations
  - ⊕ Incomplete (it turns out) fixes to DRUDG for unsupported equipment at other stations
  - ⊕ Handle DBBC DDC v104 date code  
“August 01 2013”
  - ⊕ Plotlog works to plot both traditional and continuous cal Tsys data
  - ⊕ Support for station LO\_CONFIG command
  - ⊕ Support for station TARGET\_TIME command (TTW)
- ◆ All stations are encouraged to upgrade to this version as soon as possible to make future upgrades easy

# (soon to be) Current Release

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- ◆ FS 9.11.5
- ◆ Fixes Mark5C problem with RadioAstron schedules
- ◆ BIT\_STREAM command for eVLBI with Mark 5B recorder
  - ⊕ Select correct rack type and recorder 'none' in DRUDG
    - Also works for eVLBI with Mark 5A recorder systems
  - ⊕ BIT\_STREAM command is used to set bit stream mask internally in the FS without accessing Mark 5B recorder and allows normal Tsys collection
  - ⊕ Other minor improvements

# Next Release (Spring 2014)

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- ◆ Mark 5C recorder support
- ◆ RDBE – PFB personality
- ◆ Parallel device support for Mark 5C and RDBE
  - ⊕ Single command for parallel commanding of similar devices, e.g., to start all Mark 5Cs recording:
    - disk\_record=on
  - ⊕ Control is actual parallel, if one device times-out the others are not affected
  - ⊕ Commands for individual devices available as well, e.g.,
    - disk\_recorda=on
    - disk\_recordb=on
    - ...
- ◆ Support developmental VGOS (was know as VLBI2010) observing modes
- ◆ metserver/metclient reworked to support multiple clients better
- ◆ DBBC – PFB support (80 Hz not available yet)
- ◆ FILA10G support

# Current Status of Next Release

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- ◆ Mark 5C recorder support basically works
  - ⊕ Need small syntax improvements in Mark 5C
- ◆ RDBE – PFB personality
  - ⊕ Radiometry works, but need configuration commands
  - ⊕ Need small syntax improvements in RDBE and/or new firmware version (1.4 vs 3.0)
- ◆ Parallel device support for Mark 5C and RDBE
  - ⊕ working
- ◆ metserver/metclient
  - ⊕ working
- ◆ DBBC – PFB Support
  - ⊕ Not started, may be in a second spring release, well before EVN Session 2 in any event

# Later this year

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- ◆ eControl
- ◆ Mark 6 recorder support
- ◆ RXG file related:
  - ⊕ New rxgfile SNAP command to allow RXG file updates without restart
  - ⊕ Logging of RXG file identification information for better accountability
- ◆ Periodic Satellite Commands in Az-El and RA-Dec
- ◆ Satellite visibility output
- ◆ RDBE DDC Support

# Also coming ...

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- ◆ 30 minute periodic “BEOB” procedure in place of “MIDTP” for periodic monitoring functions
- ◆ Improved rack=none set-up comments
- ◆ Source scanning on the fly
  - ⊕ Improvement on fivept for antennas that can scan in rate
- ◆ Band switching



# Conclusion

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- ◆ 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
- ◆ Discussion ...