

SD operation

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- Stations Self shutdown (low battery voltage)
- small PMT data problem from Dec. 28th, 2023 to Jan. 08th, 2024.
- RD traces - found a problem.
- CDAS: lightning.
- CDAS: tests.

Stations Self shutdown (low battery voltage)

- It has been comment before about the issue.
- Right now, the idea is to protect the electronics (e-Fuse problem).
- Now this algorithms should be working to all the array.

small PMT data problem from Dec. 28th, 2023 to Jan. 08th, 2024.

- A problem has been identified on Dec. 27th night and processes in CDAS has been restarted.
- For some reason the spmt process (in CDAS) starts to write the data with some strange data format (root can not read the data).
- The process spmt has been restarted on Jan. 08th, 2024

RD traces - found a problem.

- In Some stations with RD electronics, the RD traces was exactly the same between different T3 events (about 50% of times).
- All the stations with problem had UUB Firmware version 17150321 (currently running in the field).
- There a known issue with this particular firmware version, for the RD buffer management.
- In the stations with RD electronics, the UUB-firmware should be 17121121.
 - The firmware should be already in all stations. Electronics which are switch off and on, should start with newer firmware.
 - Few stations may had an error during firmware transmission and may start with previous firmware.

- For some reason, with UUB, there much more triggers related with lightning.
- Two known issues happen in CDAS related with lightnings:
 - a problem in communication between Xb and IkServer processes. T3 stop to be transmitted.
 - Generate a long queue of T3 requests to be transmitted from CDAS to the stations.
- On Jan 21 - present the first problem (recovered about 12 hours later)
- The same day evening the second problem present to the BSUs 24 and 28. Recovered by making reset of the BSUs.

- The two issues should be considered in the cdas which are in tests.
- Use two periods with storm with BSUs which looks to have problems:
 - Jan. 11th: BSUs 23, 24, 27 and 28; later add 4 BSUs of Loma Amarilla
 - Jan. 23th: BSUs 32, 33, 34, 36 and 37 (Loma Amarilla).
- All the files in the tests should be available in Lyon
.../Raid/data/SdTests/2024/01/
- The two problems present in the test of Jan. 23th with expected behavior:
 - Xb process kill itself in case of communication error with IkServer
 - packets with are old are rejected.