

SRS system status

Marek Gruchala

Set of problems

- Zero trigger rate (1 & 2 FECs)
- Big ADC words (1 & 2 FECs)
- Empty root files (2 FECs)

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Size:152 (header:80) Version:0x0003000e Type:PhysicsEvent
RunNb:115 nbInRun:30 burstNb:0 nbInBurst:0 ldcId:1 gdcId:VOID time:Fri Apr 7 11:32:58 2017 +256476usec Attributes:noAttr(00000000.00000000.00000000)
triggerPattern: 0)00000002 1)00000000 2)00000000 3)80000000 detectorPattern:00000000[invalid]
0) 00000048 00000016 00000002 00000000 | H. . . . .
16) 00000000 00000000 00000004 00000000 | . . . . .
32) 41505a00 aabb0fa0 00000015 00000000 | .ZPA . . . . .
48) 00000001 41505a01 aabb0fa0 00000015 | . . . .ZPA . . . . .
64) 00000000 fafafafa . . . . .

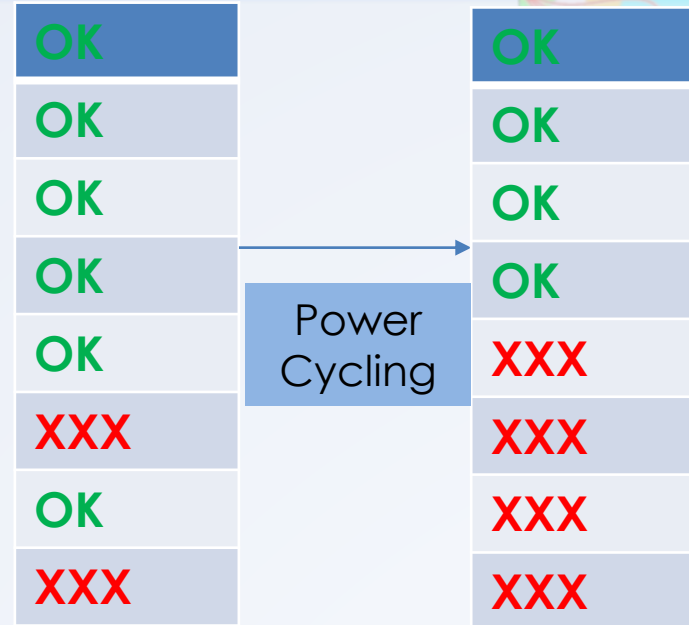
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Size:504 (header:80) Version:0x0003000e Type:PhysicsEvent
RunNb:115 nbInRun:31 burstNb:0 nbInBurst:0 ldcId:1 gdcId:VOID time:Fri Apr 7 11:32:58 2017 +258207usec Attributes:noAttr(00000000.00000000.00000000)
triggerPattern: 0)00000002 1)00000000 2)00000000 3)80000000 detectorPattern:00000000[invalid]
0) 000001a8 00000016 00000002 00000000 | . . . . .
16) 00000000 00000000 00000004 00000000 | . . . . .
32) 41505a00 aabb0fa0 00000015 00000000 | .ZPA . . . . .
48) 00000001 41505a01 aabb0fa0 08000015 | . . . .ZPA . . . . .
64) 00000000 17000d00 0f000900 00000000 | . . . . .
80) 0c000400 edffe6ff f6ffffff a1ff7dfe | . . . . .
96) 33fec5fe 40ff8cff acffbfff cffd33ff | . . .3 . .@ . . . .
112) 1b00f3ff 05001100 0800f3ff fdff0900 | . . . . .
128) feff0000 fbff0200 f3ffc0fe 29fa0ffa | . . . . .
144) 6cfa82fb 41fcd0fc 62fd00fe 36001000 | . . .1 . . .A . . .b . . .6
160) f2fff7ff f3fff6ff 07000500 f7ffffff | . . . . .
176) 0200fbff fafff4ff 4bfd4bfa 31faa9fa | . . . . . .K.K . . .1
192) 78fb35fc c2fc5dfd 37002000 0d000400 | . . .5.x .] . . .7 . . .
208) f8fff1ff f7ffffff feffffff 0000dfdf | . . . . .
224) e2feffa f3f9def9 84fa7ffb 31fcccfc | . . . . . . .1
240) 68fd7fd 3b00fbff f4ffedff fcff0a00 | . . .h . . ; . . . .
256) 0a000600 0100ffff 07000700 fcff73ff | . . . . . . .s. . . .
272) 7ffeffff 80ffc7ff e4ffecff f0ff0100 | . . . . . . . . . .
288) 56000f00 0300ffff 00000100 fffffdff | . . .V . . . . . . .
304) fefff8ff fdffcff fdff0600 30fecdfc | . . . . . . . . .0
320) fffc89fd 07fe7ffe e8fe2eff 57000100 | . . . . . . . . .W
336) 0c000d00 ffff1400 fcfff7ff fffff9ff | . . . . . . . . . .
352) fcfff2ff 86ff3cfe c0fc09fd b0fd58fe | . . . .<. . . .X. . .
368) cbfe0aff 50ff83ff 7700dff eeff0000 | . . . .P . . .w . . .
384) 01000400 0f000d00 0000f8ff 02000700 | . . . . . . . . . .
400) e9fff2fe f5fb6dfb f5fb9afc 1ffdb8fd | . . . .m. . . . .
416) 32fea0fe fafafafa . . .2 . . . .
  
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Big ADC word example





Debugging




- Mainly focused to find the Big ADC word origin, using 10.0.0.2 FEC.
- HDMI outputs iteratively checked.
- Problematic positions excluded from further data acquisition.
- Confirmed positions are not „permanently working” ones. After power cycling the system outputs 5 & 7 cause problems.
- High statistics acquisition is ongoing to determine the physics sense of the acquired data.
- No problems observed when using FEC v1.3



IP: 10.0.0.2

BACKUP

TEST #	PROBLEM	ACTION PERFORMED	STATUS
1a	Zero trigger rate (2 FECs/1 FEC)	FEC v6 Phase in /srsconfig/fec_phase.txt changed from 00000001 to 00000010 and reboot sequence in the zs_script.sh commented out.	
1b	Collected data are full of "0", files do not undergo the reconstruction	Re-uploading of the firmware.	
POWER CYCLING OF THE SYSTEM			
2a	Collected files undergo the reconstruction and analysis but only few hits/clusters pass selection	SCRIBE & DATE restarted FECs powercycled	
2b	Collected data are full of "0", files do not undergo the reconstruction	Under development	

TEST #	PROBLEM	ACTION PERFORMED	STATUS
1a	Zero trigger rate (2 FECs/1 FEC)	FEC v6 Phase in /srsconfig/fec_phase.txt changed from 00000001 to 00000010	
1b	Collected data are full of "0", files do not undergo the reconstruction	Re-uploading of the firmware	
POWER CYCLING OF THE SYSTEM			
2a	Zero trigger rate problem is back	Reboot sequence in the /var/www/cgi-bin/zs_script.sh commented out	
2b	Collected data are full of "0", files do not undergo the reconstruction	Under development	