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Lorenzo Busoni <lbusoni@gmail.com>

Camera doesn't restart after a pause
4 messaggi

Lorenzo Busoni <lbusoni@arcetri.astro.it>   25 marzo 2013 18:02
A: Gilles Orban de Xivry <xivry@mpe.mpg.de>
Cc: Sebastian Rabien <srabien@mpe.mpg.de>, Wolfgang Gaessler <gaessler@mpia.de>, Jose Borelli
<borelli@mpia.de>, Martin Kulas <kulas@mpia-hd.mpg.de>, Marco Bonaglia <mbona@arcetri.astro.it>, Tommaso
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Hi Gilles,
some bug again?

Sequence: a,E,o,c => Camera is cooled and working, and we get frames.
We stop during videoconf (S,C) but camera is kept cold

We restart (c,s). We don't get any frame. 'L' shows problems. The log
of wfsServer shows problems.
Some diagnostic is attached

Ciao
Lorenzo


```
==================== TOP =================

top - 18:12:24 up  7:31,  2 users,  load average: 0.53, 0.46, 0.45
Tasks: 116 total,   1 running, 115 sleeping,   0 stopped,   0 zombie
Cpu(s):  0.2%us, 20.1%sy,  0.0%ni, 79.8%id,  0.0%wa,  0.0%hi,  0.0%si,  0.0%st
Mem:   3977492k total, 3951756k used,   25736k free,    5624k buffers
Swap: 1253060k total,  781444k used,  471616k free,  101224k cached

  PID USER      PR  NI  VIRT  RES  SHR S %CPU %MEM    TIME+  COMMAND
 2913 root      16   0 4428m 3.4g 7484 S 39.9 90.4 222:22.84
wfsService
 1935 root      12 -10 38932  32m 1736 S  0.0  0.8   0:00.01 iscsiuio
 3034 gdm       16   0  219m  18m 6568 S  0.0  0.5   0:00.62
gdmgreeter
 2989 root      34  19  251m 8776 2204 S  0.0  0.2   0:00.28
yum-updatesd
 2985 root      15   0  352m 6304 4416 S  0.0  0.2   0:01.36 Xorg
 2984 root      19   0  185m 4104 3372 S  0.0  0.1   0:00.01
gdm-rh-security

=============== Client ========================

==> L
PSU DIAG: 1 22.6
PSU Statuses: 1. memory [C], 2. output status, 3. diagnostics
1 1 1
HK statuses: 1. Cooling water temp. [C], 2. Housing temp. [C], 3.
Humidity state, 4. Pressure state:
```

1. 1
2. 1
3. 0
4. 0
PEC statuses : 1. cooling on? 2. PEC communicating, 3. Pec Parameters,
4.Temperature consistent, 5. Cooling state :
1. 1
2. 1
3. 1
4. 1
5. 1
CCD statuses: 1. camera on., 2. camex on., 3. camex programmed, 4.
isSequencerOn, 5. isSequencerRunning, 6. isADCOn, 7. isFrameSizeOk
1. 1
2. 0
3. 1
4. 1
5. 1
6. 1
7. 0
==> S
Stopping sequencer
==> C
User: Turning Camera Off
==> c
User: Turning Camera On
==> s
Starting sequencer
==> L
PSU DIAG: 1 22.1
PSU Statuses: 1. memory [C], 2. output status, 3. diagnostics
1 3 1
HK statuses: 1. Cooling water temp. [C], 2. Housing temp. [C], 3.
Humidity state, 4. Pressure state:
1. 1
2. 1
3. 0
4. 0
PEC statuses : 1. cooling on? 2. PEC communicating, 3. Pec Parameters,
4.Temperature consistent, 5. Cooling state :
1. 1
2. 1
3. 1
4. 1
5. 1
CCD statuses: 1. camera on., 2. camex on., 3. camex programmed, 4.
isSequencerOn, 5. isSequencerRunning, 6. isADCOn, 7. isFrameSizeOk
1. 1
2. 0
3. 0
4. 0
5. 1
6. 0
7. 0
==> E
User: initialize camera readout:
==> L
PSU DIAG: 1 22.1

PSU Statuses: 1. memory [C], 2. output status, 3. diagnostics
1 3 1
HK statuses: 1. Cooling water temp. [C], 2. Housing temp. [C], 3.
Humidity state, 4. Pressure state:
1. 1
2. 1
3. 0
4. 0
PEC statuses : 1. cooling on? 2. PEC communicating, 3. Pec Parameters,
4.Temperature consistent, 5. Cooling state :
1. 1
2. 1
3. 1
4. 1
5. 1
CCD statuses: 1. camera on., 2. camex on., 3. camex programmed, 4.
isSequencerOn, 5. isSequencerRunning, 6. isADCOn, 7. isFrameSizeOk
1. 1
2. 0
3. 0
4. 0
5. 1
6. 0
7. 0
==> s
Starting sequencer
==> L
PSU DIAG: 1 22.1
PSU Statuses: 1. memory [C], 2. output status, 3. diagnostics
1 3 1
HK statuses: 1. Cooling water temp. [C], 2. Housing temp. [C], 3.
Humidity state, 4. Pressure state:
1. 1
2. 1
3. 0
4. 0
PEC statuses : 1. cooling on? 2. PEC communicating, 3. Pec Parameters,
4.Temperature consistent, 5. Cooling state :
1. 1
2. 1
3. 1
4. 1
5. 1
CCD statuses: 1. camera on., 2. camex on., 3. camex programmed, 4.
isSequencerOn, 5. isSequencerRunning, 6. isADCOn, 7. isFrameSizeOk
1. 1
2. 0
3. 0
4. 0
5. 1
6. 0
7. 0

================= Service =====================

[PSU] - start check voltages and currents -
[PSU] - end check voltages and currents -

[PSU] Checking PSU voltages and currents...
[QProcess]: /home/pnccd/SEQ-New-Standard/bin/seqCntrlcount
Error: Failed to Start SEQ Software Routine 'seqCntrlcount'
[CCD] SEQ software 'seqCntrlcount' failed
[QProcess]: /home/pnccd/HRL_PsfSEQ_sdi_092012/bin/psf4adCntrlcheckframesize
Error: Failed to Start Software RoutineDebug: a,b: -11Failed to Check
ADC counters
[QProcess]: /home/pnccd/SEQ-New-Standard/bin/seqCntrlcount
Error: Failed to Start SEQ Software Routine 'seqCntrlcount'
[CCD] SEQ software 'seqCntrlcount' failed
[QProcess]: /home/pnccd/HRL_PsfSEQ_sdi_092012/bin/psf4adCntrlcheckframesize
Error: Failed to Start Software RoutineDebug: a,b: -11Failed to Check
ADC counters
[CCD-PSU] Camer/ PSU stat: 13[CCD-PSU] Camer/ PSU stat: 132013-03-25
18:03:40 Temp. CCD: -20.13, Peltier output [%]: 44, Cooling status:
1, Camera status: 1, PSU status [U,I]: 1
!! 03/25/13 18:03:40.570 ./wfsService: error: [PSU] Voltages and
current are WRONG
    :Number of voltages and currents not within range - nb of errors:
8List of channels measurements: [Inst, Status, U, I]
   6, 3, 6.09158, 6.09854, 4.71705, 8.68617
   8, 3, 6.02384, 6.03078, 4.76088, 12.622
   21, 3, 2.69826, 2.7033, 5.415, 29.2344
   22, 3, 2.6965, 2.70275, 0.74273, 23.7952
   23, 3, 2.81445, 2.83445, 166.745, 376.274
   24, 3, 2.69766, 2.71404, 1.06446, 184.614
   25, 3, 2.7874, 2.7999, 167.489, 305.6
   26, 3, 2.6976, 2.71385, 20.6441, 179.492
   !!! Should be Turning off the camera... !!!
GOX DEBUG: 3
[PSU] - start check voltages and currents -
[PSU] - end check voltages and currents -

[PSU] Checking PSU voltages and currents...
[QProcess]: /home/pnccd/SEQ-New-Standard/bin/seqCntrlcount
Error: Failed to Start SEQ Software Routine 'seqCntrlcount'
[CCD] SEQ software 'seqCntrlcount' failed
[QProcess]: /home/pnccd/HRL_PsfSEQ_sdi_092012/bin/psf4adCntrlcheckframesize
Error: Failed to Start Software RoutineDebug: a,b: -11Failed to Check
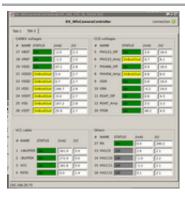ADC counters

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Screenshot-7.png
94K

Gilles Orban de Xivry <xivry@mpe.mpg.de>   25 marzo 2013 18:11
A: Lorenzo Busoni <lbusoni@arcetri.astro.it>

- the sequencer has again some issues and that happened after the turn on
- try to turn off and then turn on (C and c), don't use 's'.
I ll check the details of the voltages but I think nothing dangerous.

if you need more support today - let me know because otherwise I am leaving now
ciao,
Gilles

[Testo tra virgolette nascosto]

Lorenzo Busoni <lbusoni@arcetri.astro.it>   25 marzo 2013 18:42
A: Gilles Orban de Xivry <xivry@mpe.mpg.de>
Cc: Sebastian Rabien <srabien@mpe.mpg.de>, Wolfgang Gaessler <gaessler@mpia.de>, Jose Borelli
<borelli@mpia.de>, Martin Kulas <kulas@mpia-hd.mpg.de>, Marco Bonaglia <mbona@arcetri.astro.it>, Tommaso
Mazzoni <tmazzoni@arcetri.astro.it>

As a follow up of the check done together with Gilles, just to keep
memory of what happened:
1) the sequencer display in the rack was saying 4008 (instead of usual 4028)

We restarted the wfsService (killed and cd wfs; sudo ./wfsService),
reconnect the client and initialize the readout ('E')
Everything seems fine from the software. The sequencer displays is 4028

I attach the log of the wfsService (complete, from 20/3 till today) to
help Gilles's debugging.

We'll keep en eye on this issues, that could be either HW problem in
sequencer or SW. I'll try to reproduce it.

L.

==

==> E
User: initialize camera readout:
==> L

PSU DIAG: 1 21.1
PSU Statuses: 1. memory [C], 2. output status, 3. diagnostics
1 0 1
HK statuses: 1. Cooling water temp. [C], 2. Housing temp. [C], 3.
Humidity state, 4. Pressure state:
1. 1
2. 1
3. 0
4. 0
PEC statuses : 1. cooling on? 2. PEC communicating, 3. Pec Parameters,
4.Temperature consistent, 5. Cooling state :
1. 0
2. 1
3. 1
4. 1
5. 0
CCD statuses: 1. camera on., 2. camex on., 3. camex programmed, 4.
isSequencerOn, 5. isSequencerRunning, 6. isADCOn, 7. isFrameSizeOk
1. 0
2. 0
3. 0
4. 1
5. 1
6. 1
7. 0

2013/3/25 Lorenzo Busoni <lbusoni@arcetri.astro.it>:
[Testo tra virgolette nascosto]

📄 **log_inaf_pnccd_pc_service.txt**
1798K

Gilles Orban de Xivry <xivry@mpe.mpg.de>   26 marzo 2013 09:03
A: Lorenzo Busoni <lbusoni@arcetri.astro.it>

Hi Lorenzo,

some comments for this morning (I will send later a general email for the record):

- the voltages problems come indeed for the sequencer problem (no CAMEX programmation). This should
definitively be avoided!

- I will modify this morning the 'turnOn' function to make sure such problem do not happen anymore - and I will
also implement 'absolute' voltage checking that should be valid whatever the external trigger rate + automatic
shutdown. I will need a bit of time to make the change and check this is working fine, I hope I can come with
something ready beginning of the afternoon.
In the meanwhile, if this is not a big issue, please do not turn on the camera. If you really want to, make sure
before pressing 'c' that the sequencer is working fine. (and be ready to turn off the camera).

- we didn't discuss this yesterday, but there is maybe a memory leak from the 'top' you sent me. Could you try to
monitor it a bit (see if this come from the normal thread or from the use of the sequencer etc.)? maybe has to do
with the sequencer problem…

- if you have the chance to restart the service, give it a try as 'normal' user (not sudo - and see what the
sequencer is doing - since I cannot reproduce this error in garching we have to find out why we have this

limitation).

- note: you don't need to 'kill' the service, you can smoothly 'shutdown' it.

more later,
Gilles

[Testo tra virgolette nascosto]