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## Notes from 11oct2023 SOUL meeting

1 message

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Sun, Oct 15, 2023 at 3:22 PM

To: Enrico Pinna &lt;enrico.pinna@inaf.it&gt;, Sam Ragland &lt;sragland@lbto.org&gt;

Hi Enrico, Hi Sam -

Please find below notes from our October 11 zoom to discuss the [spreadsheet](#).

Since our next meeting is not until November 8th, perhaps we can make progress closing a few via email. Enrico, are there items on the list that you feel should be closed "as is" (i.e., without any further action), and/or that can be closed in the near term with minimal action?

AI

- L\_01: *Ocam bad frames*
  - I changed L\_01ABC as we discussed to be:
    - L\_01A: Ocam issue #1 = Zero Slopes firmware fix
    - L\_01B: Ocam issue #2 = Zero Slopes work-around
    - L\_01C: Ocam issue #3 = Negative Intensity
- L\_01A: *Ocam issue #1 = Zero Slopes firmware fix*
  - I generated a new [status page](#), and put a link to it in the spreadsheet, with this status:
    - No BCU dump was collected after the zero slopes event caught during day testing on 05sep2023.
    - JCG resumed day testing with plans to collect BCU dump the next time a zero slopes event was caught.
    - During day testing on 12sep an event was caught, A BCU dump was collected and sent to the SOUL team.
    - Next steps: SOUL team to work with Microgate on analysis of the BCU dump and (hopefully) a new fix.
- L\_01B: *Ocam issue #2 = Zero Slopes work-around*
  - LBT plans to deploy the workaround.
- L\_01C: *Ocam issue #3 = Negative Intensity*
  - At this point the best theory is that some noise is being introduced on the serial line. LBT will work with mountain staff and/or engineering (Mike Wagner? James Riedl?) on possible shielding or other improvements to the cable connection.
  - Trying to confirm this theory in the lab by introducing some EM interference was also discussed as a possibility.
- L\_01D: *Ocam issue #4 = Other items in JP [Zoology](#) list*
  - I added this 4th sub-item under Ocam bad frames.
  - The statement in the acceptance review final report is "expectations ... resolving the OCAM issues discussed in the review and summarized in separate communication."
  - If I recall correctly, "separate communication" refers to the JP [Zoology](#), but let's discuss this when we next meet. As discussed, many of these are either already resolved or might wait for a service contract.
  - We discussed "not live" (for now this falls under L\_01D since it is listed as O2K.03 in the [Zoology](#)).
  - "Not live" is a symptom that can have many different causes (e.g., Ocam problem, BCU problem, message daemon problem, communications with the AdSec, AO arbitrator crash, etc).
  - No tracking number is available after a "not live" event, making it harder to troubleshoot.
  - Some (many?) "not live" events are associated with network problems.
  - The user procedure contains instructions on how to troubleshoot (i.e., find the root cause) when a "not live" event occurs.
  - A new problem that operators are calling "mini not live" has cropped up during this semester.
  - A description is given in this [email from Jenny](#).

- During the discussion, the topic of the support contract (anticipated as part of the handover process) came up.
- Should "support contract" be added as a line item in this spreadsheet?
- LBT prefers to keep the support contract discussion separate from the process of working through the outstanding items from the acceptance reviews.
- What are the next steps for "not live"? TBD
- L\_06: *Produce the reconstructor for handling blinded subapertures*
  - As per 10oct2023 email from Guido A. to Juan Carlos, IDL has been provided.
  - We agreed that this item can be closed.
  - As suggested at the meeting, I added a column for open/closed status, marked this one as closed, and moved it to the bottom.
- L\_08: *Investigate noise in the pupil interdistance measurement*
  - The performance hit is negligible ("loss in SR(H) of [only] 0.3%").
  - The measurement noise could be the result of steep slopes at the edges.
  - We agreed that this item can be closed.
  - I moved it to the end and marked it as closed.
- CR\_DX\_LUCI\_115: *Make improvements needed for LUCI spectroscopy*
  - Sam is working with Dave Thompson to determine what is needed.
  - Solving the GPS "nudge" problem is one of the things required for long exposures.
  - For PSF Stability, in 2017 the SOUL team worked with Doug Miller on a solution that involved a lookup table.
  - There are some slides that document that effort (?)
  - Even though this is outside the scope of SOUL handover, we will keep it on the list for now.
- CR\_DX\_LUCI\_117: *Use actual values for LUCI dichroic bandpass in computations*
  - The "clean" solution is outlined in slide #4 of the [slides](#) presented at the DX LUCI review (I had a link to an out of date version of these slides in the previous notes).
  - As per that solution: Once the flux calibrations are complete (item L\_05), then the conversion factor can be set to 1.0.
  - The differences in dichroic cut-off and other WFS specific factors will be taken care of by using the WFS-dependent flux calibrations.
  - So this item is deprecated by L\_05.
  - We agreed to close this one (CR\_DX\_LUCI\_117) and keep L\_05 open until the flux calibrations are completed and this "clean" method has been tested and proven to fix the 0.2 mag difference in AOS table parsing.
  - I closed it and moved it to the end of the list.
- CR\_DX\_LBTI\_064 and CR\_DX\_LBTI\_075: Closed as discussed.
- CR\_DX\_LBTI\_098: *Bin4 delay*
  - Fabio has produced new software to shift pupils.
  - That software addresses this item.
  - Enrico will double check with Fabio about the status of the github pull request.
- Date of next meeting: **November 12**, 0830 MST

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