2021-08-25 TSO WG Meeting notes

Date

25 Aug 2021

Attendees

- Sarah Kendrew
- Diane Karakla
- Unknown User (aroy)
- Brian Brooks
- Nikolay Nikolov
- Leonardo Ubeda
- Thomas Beatty
- Everett Schlawin
- Michael Regan
- Tony Keyes

Apologies:

- Nestor Espinoza
- Unknown User (birkmann)
- Knicole Colon

Meeting agenda:

1. News & Announcements.
2. Updates: NIRSpec pipeline validation; 1/f noise analysis & reporting; high-efficiency modes
3. TSO JDox updates progress (Kendrew)
4. AOB

Meeting slides

No slides today

Discussion items

Time	Item	Who	Notes
5 mins	**1. News & announcements**	Everyone	▪ LRE5 - no major updates ▪ Everett Schlawin - NIRCam currently updating commissioning targets. For the TSO test activity, replacing the current eclipsing binary target with a transiting exoplanet. Chose the same target as NIRISS for the same test. This will facilitate cross-mode comparison. Perhaps other instruments can do same? ▪ There was some discussion re. choosing targets for commissioning and not appearing like we are getting extra science data via commissioning. NIRSpec and MIRI both recall these conversations. But if the PIT review panel for the NIRISS activity that uses HAT-P-14b and WASP-18 as targets did not raise any errors, then perhaps we should aim for more target commonality between modes. ▪ NIRCam's primary target is HAT-P-14b and the transit duration is ~2.2 hours, for a total observing time (for NIRISS) of ~5 hours. WASP-18 is the backup target. ▪ Nikolay Nikolovsays the targets was chosen for having a very featureless transit signal - expected to see a straight line. It is still scientifically interesting though.
25min	**2. Updates on work items**		

			▪ NIRSpec pipeline validation (Leonardo Ubeda)
			  ▪ Leonardo is currently working on the technical report for the non-linearity correction. Expect to have a report ready for review by the end of next week.
			  ▪ Further analysis work is planned for validation of the Spec2 and TSO3 pipeline steps
			▪ 1/f Noise analysis (Unknown User (aroy) & Diane Karakla)
			  ▪ No major new analysis.
			  ▪ Work is currently with Nestor Espinoza who is working on a better modelling /correction method
			  ▪ A discussion of this will be part of the JDocs updates.
			
			▪ High-efficiency modes (Michael Regan)
			  ▪ Nestor, Mike & Eddie met with Natasha Batalha. She has the information she needs to include 100% efficiency modes into PandEXO, in order to model the scientific gains from such modes.
			  ▪ The goal for getting this modeling done is end of September, Natasha said this was feasible.
			
			▪ Non-linearity correction (Michael Regan)
			  ▪ Mike Regan as written a short report on the impact of non-linearity correction errors on the ability to detect a transit. Assuming a 1% transit depth, not correction the NL gives an error of 1e-3 on the transit signal. Applying a NL correction with a 1% error reduces this error to 1e-5.
			  ▪ Currently reviewing the draft, will send to the WG next week for further review & discussion.

25min	**3. JDox TSO updates**		

		Sarah Kendrew	▪ We have started work on the TSO JDocs updates. See tickets JDOXCM-301 and JDOXCM-302, with various sub-tasks. There will be updates in 2 sections:
			  ▪ the proposal preparation section ("Methods & Roadmaps") - here we already have a TSO section so our changes are edits and additions to existing content.
			  ▪ the Data section - this would be a new section and we do not yet have a page structure for that. SK has spoken with Alaina (JDox lead) and she requested that we come to a JDox meeting with a proposal for a page outline that can be rolled out for other modes as well. This portion of the work will therefore take a bit longer.
			
			▪ SK requested that the team members who are listed as editors do try to log into the editing interface, to make sure it works.
			▪ The deadline for this is end of September, but this is more our internal WG deadline than a hard need date for JDocs. SK would aim to get first versions ready by then, but knowing that iterations and reviewing can take longer.
			
			▪ Everett Schlawinvolunteered to be reviewer for any content on 1/f noise
			▪ Nikolay Nikolovwould like the timing section to be its own article. Sarah Kendrewwill raise the issue with JDocs that the observatory timing needs to be covered in the Observatory pages

5 mins	**4. AOB**		▪ Nikolay Nikolov asked about the automated pipeline testing. Are we coordinating this with the TSO WG whenever a new pipeline build comes out?
			  ▪ Sarah Kendrew - this is currently being coordinated more within the instrument teams & DMS working groups. If we feel this is not working well for TSOs specifically then we could add this as a task for the future, to review these tests.
			  ▪ Sarah Kendrew - for MIRI we have automated testing notebooks, and the LRS group does review these whenever a new build comes out (e.g. we did this in July for B7.8)
			  ▪ When the change in the pipeline addresses a JIRA ticket (a bug fix, algorithm change) then this is managed through JIRA. The developers or DMS leads will set the ticket to "Ready for testing" and reassign back to the original reporter. This is never "automated".