

ECSV Discussion

25 September 2012, 10am in room 317

Attendees:

Sanjay Bhatnagar, Bryan Butler, Claire Chandler, Vivek Dhawan, Barry Clark, Mark Claussen, Eric Greisen, Joe Lazio, Christene Lynch, Minni Mao, Josh Marvil, Robert Mutel, Steve Myers, Susan Neff, Kristina Nyland, Juergen Ott, Frazer Owen, Rick Perley, Nurur Rahman, Dave Roberts, Michael Rupen, Bob Sault, Deb Shepherd, Lorant Sjouwerman, Ken Sowinski, Ravi Subrahmanyam, Joan Wrobel

Minutes:

News:

- This is Nurur Rahman's last RSRO day.
- Joe Lazio is here until 28 September. He will be working on science and pulsar commissioning.

RSRO Report by Nurur Rahman:

- Nurur has been here for 4 months working with Bob Sault and George Moellenbrock. He gave a presentation about the work he has been doing on a comparison between CASA and Miriad linear polarization of 3c286 at 1.4 GHz (focus at L-band KAT-7 data). A copy of Nurur's presentation is available at: <https://safe.nrao.edu/wiki/pub/EVLA/ECSVMeetings/09-ECSVmeeting-25sep12-rahman-presentation.pdf>
 - Rick notes that the results we are getting in CASA and Miriad are consistent with what he gets in AIPS on 3c286
- We are now in a position to use CASA for linearly polarized data, e.g. at P-band.
- Nurur has given Deb his CASA script for the KAT-7 data reduction. This will be a good starting point for P-band reduction in CASA. Deb forwarded these to Frazer
- Nurur's final RSRO report is available at:
 - <https://safe.nrao.edu/wiki/pub/EVLA/RSROCalendar/Rahman-finalReport.txt>

Correlator and general system health (Vivek, Michael)

- We have begun the move to A-config.
- The dipoles for 4-band are up for 2 weeks for testing.
- There is a lot of test time available at night if you have tests.
- During A config, there will be a light load at the night. Daytimes are heavily oversubscribed.
- Commissioning progress:
 - We are having problems with narrow sub-bands where we get pure zeros. There may be similar problems with recirculation at narrow bands. Michael, Ken & Vivek are investigating.

- There are still some inconsistencies in the way the system is functioning at different times. One-off problems that are being tracked and trouble-shooted.
- We are also still getting into the executor and CBE “molasses mode” occasionally. This is when the software (either the executor or the CBE) slows to a crawl and we start losing data. Both issues are infrequent (happens only once every couple of months).
- We have had significant progress on 3-bit commissioning (see Michael’s presentation on how to do 3-bit observing). We now have a web-test version of the OPT that creates usable scripts that do not need hand editing. This opens 3-bit observing up to the very first RSRO observing.
- Phased array tests are on-going – we hope to demonstrate an end-2-end test this week (all except for the VEX2OPT step that still has a few parts missing).
- No significant progress on sub-array development. 3-bit and phased array commissioning have priority

Software status (Bryan):

- We had an NGAS failure that took down the archive over the weekend. This appears to have been due to an overload on one of the archive nodes when a large dataset was being downloaded. So the archive is still ‘fragile.’
- The weather station failed last week due to a power cycle. It is not clear why.

Pipeline development (Claire):

- There is a new version of the pipeline and Claire is asking people to test this. There is a fairly major restructuring of the Pipeline and some other changes so it needs broad testing.
 - If you have a recent JVLA dataset that has been reduced in another package, please push it through the pipeline.

CASA (Steve, Juergen):

- The feature freeze for CASA 4.0 was last week. Active testing is on-going. There should be a pre-release version ready for everyone here to work with by next week.
- Juergen has assembled the release notes for CASA. In this meeting he reviewed the general categories where we have had new development added and he gave some highlights. The details of the release notes are available at the following link:
 - http://casa.nrao.edu/Release4.0.0/release_notes.shtml
 The list of known issues is available at:
 - http://casa.nrao.edu/Release4.0.0/release_ki.shtml
- Steve has started the process of requirements definition for CASA 4.0. ALMA and EVLA pipelines will take up most of the available CASA effort. This next cycle starts development on 15 October 2012.

How to do 3-bit observing – a user's guide (Michael):

- See Michael's presentation