ECSV Discussion
7 August 2012, 10am in room 317

Attendees:

Barry Clark, Vivek Dhawan, Eric Greisen, Miller Goss, Jeff Kern, Jeremy Lim, Drew Medlin, Betsy Mills, Emmanuel Momjian, Steve Myers, Kristina Nyland, Nurur Rahman, Nirupam Roy, Juergen Ott, Frazer Owen, Michael Rupen, Deb Shepherd, Ken Sowinski, Ravi Subramanya, Urvashi R.V., Gustaaf van Moorsel, Kathryn Weil, Joan Wrobel, Hsi-Wei Yen

Minutes:

Welcome to Jeremy Lim and Hsi-Wei Yen.
- Jeremy is a professor at the University of Hong Kong and is supervising Hsi-Wei who is working toward a PhD at the National Taiwan University.   Jeremy will be here until about 17 August while Hsi-Wei will be here through mid-December (a few weeks off in the middle).
- Hsi-Wei will be helping with the 3-bit system, focusing on switched-power application testing in CASA and the development of a reduction and imaging path for 3-bit data.   He will also be writing the subsequent user documentation and data reduction/imaging scripts that we will need in preparation for making the 3-bit data (K, Ka & Q-band) go live as a general capability in January 2013.

Correlator and general system health (Ken, Michael)
- 3-bit sampler testing:
    - There has been a lot of progress on the 3-bit system.   We managed to change configurations with a reduced bandwidth and using only ½ the correlator resources.   Problem of changing configs failing when we use the full BW and correlator has been traced to the Correlator Back End (CBE).   Martin is working actively on this.
    - Michael is hopeful that we will be able to do more regular 3-bit observing to develop the calibration path.
    - Michael is working with Mike Revnell and Jim Jackson to track down 3-bit sampler problems.   The symptoms have been clarified.   Mike will now look into this (possibly an upgrade with the firmware).   They are also looking at how robust the 3-bit system is.
    - We need to make sure we are doing the right things to command them via the scripts we give to the correlator.   If we can do this, we will be able to change model2script code which means we will be able to set up 3-bit observing SBs in the OPT without changing the output script before it is run.
- We have been loosing scan data.   Martin is working on this in the depths of the CBE.

- We have "molasses: problems – the CBE just slows down.   This may be a problem with too many processes being spawned.
- Recirculation testing:
  - Baseline board stacking – we can do this well.
  - Cut down the bandwidth, feed the data at a slower rate, and recirculate the data to get out more lags.   This won't be ready until next year.   We are working on characterizing issues in the CM (Configuration Mapper for the Correlator), CBE (Correlator Back End) and some low-level issues in the chip level programming.
- We are making steady progress on wide-band phasing, still not there.

Software status, including CASA (Michael)
- Recent update of the OPT, OST have introduced problems:
  - There have been several OST issues (it has been slowing over the past few days).
  - Niggly things with the OPT.   Weird wrap issue with the OPT with Betsy's SB.

CASA (Jeff)
- A new test will likely be released this week.   Cleaning up some issues with removing CCMTOOLS (the binding between python and C++) with a new binding called SWIG.
  - We will need testing for this.
- Soon (next test expected – in 2 weeks):
  - George is working on the linear polarization calibration for low-band.
  - Kumar has changed the interface to "pclean"
  - There is now a per-plane restoring beam being generated in CLEAN.
    - This will need heavy user testing in CLEAN and image analysis tasks that heavily depend on the shape of the restoring beam.
- CASA team is continuing to work on parallelization.
  - Good progress with cube-clean and this may be available in a test version in the next few weeks.
  - Continuum clean has problems that are being worked on (mf-mfs)
  - Note: you can run multiple instances of CASA and obtain some parallelization manually for now
- Juergen asked: How useful are examples on casaguides and CASA?
  - Users here found them very useful but they also found that it was difficult to find information and link between the CASA cookbook and various example scripts.   Need to reorganize the information.
  - Juergen will work with Joanna, Nurur and Betsy to get the casaguides and examples in a good shape and coordinated with the information in the cookbook.

News:
- ODP proposals accepted but still no word about approved funding.   Waiting is.

- RSRO continued funding:
  - RSRO funding for FY13 will come from the Ops budget (not the ODP funds).
- POP goals:
  - POP goals should be finalized soon.   Thanks to all for the discussion last week to ensure that what we were proposing was realistic.
- Science Operations Plan:
  - The Science Ops Plan is going to be revamped for the post-EVLA operations.   This will include a transition plan for how we move from commissioning to Operations-with-development.   We have done this before, we just need to update our ideas for the new instrument and to modernize it for the post-2012 era.