

ZWURM, 06-07-2020 14:00 (WURM through Zoom because of #COVID19 house quarantine/wk18)

Present eBob, Mark, Des, Paul, Aard, Ilse, Harro

Paul: EAS last week was very interesting, being an all-online conference it worked very well. Especially during the breaks where participants were put in small groups in separate zoom rooms and after three minutes got placed in a different room. The conference was recorded, talks remain online for one month but since there were eleven parallel tracks it is unlikely that all can be viewed before they're taken down. The LT08 tapes have now been ordered from a different supplier since there was still no outlook on delivery by Azerty. Will work in Dwingeloo this Wednesday to check equipment, work with Klaas on ASTRON 100 Gbps network. Enabled SNMP readout of network statistics, large disks and ZFS pools, some flexbuffs remaining to be updated for monitoring. Hope to be able to install services2.

Mark: Refreshed V0 memory, exposure now computed correctly. Will write up decisions made how to treat EVN archive data in V0 context to circulate+discuss internally. Had ASTRON/JIVE V0 synchronization meeting, where Mattia Mancini shared insight to generate u,v-coverage don't need to read all u,v,w coords but based on antenna positions and source direction can compute; needed to be able to characterize imageability of data (e.g. 5min scan will be difficult to produce useful image). ObsCore FoV, resolution covered, but for interferometers require extra "largest spatial scale" (shortest baseline). ESCAPE WP3 is working on workshop on open source life cycle, 23-28 July (minus enclosed weekend). Whilst running runjob w/ multiple datastreams found issues with VEX2 file but also bug in SFXC, hypothesis: this is multithreaded vdif.

eBob: Working on VEX2/multiple datastreams with Mark. Received first pySCHED problem report by email: extra slash caused uninformative (and incorrect) error message. Will change into useful warning. This week will work on 4 Gbps production correlation testing.

Des: delivered a deliverable: RINGS final, redo dispersive fringe fit on BRAND  $\hat{H}^H \hat{H}^H \hat{H}^H \hat{H}^H$  VGOS. Spent time on building CASA packages, got progress, but now really waiting on NRAO advice/expertise. Bugfix test for MichaelJ's reported bug necessary but lack of test will not hold back bugfix approval. Waiting for services2 to be installed and backup emails to arrive (both in progress by Paul).

Aard: Discovered CASA6 viewer+plotms appimages (program+dependencies packed in one image). Turn out to be CASA5 packages wrapped in Python in appimage, which do not work inside CASA6 container, don't know why (FUSE related?). Thinking about wrapping CASA5 viewer+plotms for CASA6 image self. Some FRB-related actions re. FRB polarimetry. LCP/RCP have very small delay - can handle in correlator? Yes, but won't do: fixed in filterbank output, now also includes bandpass corrections. Found that phases are opposite

catalogs, caused by different convention than "usual" (now fixed). Discovered reproducible freeze in coherent dedispersion code, not sure what cause is. An age-old #define in SFXC brought back to life, to generate random data in stead of reading from file [Mark: disable RNG, just zeroes]. Operators report freezes again, this time in multiple phase center correlations. Status dump code not yet in production. Switching between versions should be user friendlier. Need to add tests to test suite to make promoting dev -> prod versions easier [Aard: MPC, pulsar binning; Mark: sfxc2mark4]

Ilse: Working on CASA VLBI workshop preparations, input from BenitoM and OlgaB; draft programme. Issues: can tutors travel? RadioNet will reimburse extra COVID costs. ASTRON relaxation of rules mean some people may be at ASTRON, but not sure how many - probably not enough. Still waiting on De Börken (Fletcher now); maybe mix. Idea of recording lectures and have 2nd week virtual workshop where lecturers can help participants from their own home. EAS special session, all virtual went perfect, only issues with participants' laptops. Got ~80 (morning) and ~50 (afternoon) participants, ChristinaGM's SKA talk very popular. Working on hosting slides at JIVE. Was in several diversity related meetings (national, EHT, local (Dwingeloo)), RvdA townhall this week and then holiday from there. After holiday return to AOflogger and friends.

Harro: tConvert functionality to export a subset of the polarizations from MS to FITS, to help BobC bring down volume to archive from 6-epoch 700 phase centre monster experiment. Tested by integrated weight (jive-toolchain-verify tool). [Mark: what about file size? Har: hummm not verified].