

ZWURM, 12-10-2020 14:00 (ZWURM through Zoom because of #COVID19 house quarantine/wk31)

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

Ilse: Calibrating Jun's data reveals sometimes data lost in casa, even if all flags reset. Restarting from scratch does work; created believable dirty images but need to dust off casa self-cal knowledge to verify casa calibration works. Tomorrow will perform test run of CASA workshop Zoom infrastructure (180 participants ok - only in plenary mode, apparently not in webinar yet) with Merijn and Olga; program shaping up nicely. Calibration comparison script(s) would require a block of several hours of uninterrupted attention (rarely available). This week is autumn holiday so will take few days off.

Bob: migrated repositories to gitea (code.jive.eu) [error report: only see three repos even after logging in]. BenitoM reported pySCHED compilation error on new(est) compiler on Mac OS - traced to erroneous but unused code; fixed by removing violating code. When doing 4 Gbps real time now uses "udpsnor" as net protocol. Started on NorthStar issues requested by BobC.

Aard: last week e-VLBI session uneventful but at start still correlator hangs w/ subint = 0.25 s and t\_int = 1s; workaround: subint = t\_int = 1s. Debugging reveals reproducible if num freq points 2048 and 0.25 s subint, whilst 1024 freq points just works. Changing num output freq points to 32 but leave internal to 2048: still hang. State during hang: some channels on corr node expect wrong # of ffts (verified that correct number is sent and received). Debugging continues. Jupyter casa viewer now works (had overlooked that one); docker + singularity recipe updated; updated Jupyternotebook demo to newest VLA tutorial (was casa 5.(low digit) based -> many tasks do not exist anymore; tclean now takes 20 min whilst clean (original, not supported anymore) takes only few min. Integrating plotting with notebook = disaster. "plotcal" removed, but that was just Python (numpy) so integrates 100% with notebook. "plotms" is C++/Qt rubbish, does not integrate and when should create several pages of output it either produces zero or one - neither of which is the right answer: issue bug report, feature request and bring up in CASA User Committee. Uploaded jupytercasa image to IN2P3 gitlab instance, found the CI to be broken.

Paul: marcopolo resurrected to full working order (bare metal restore!); expanded casadev with ~ 8 TB raid5 storage; ASTRON 100 Gbps RMA order might be in the process of being processed - very inadequate process going on; spent time investigating expanding FlexBuff capacity; fb4 reports broken disk. Will have short meeting with SURFnet about maintenance windows on the SURFNet8 infrastructure. GNURadio VDIF module used in Xi'an and might help in getting fringes between that and FAST.

Mark: discussions going in VEX2 land: parameter in sched for how many disk packs in Mk6 for bursting mode (by EdH) and having enough gaps in schedule for cal diode measurements. Tool to create u,v

coverage plots per source from VEX file and compute ellipticity and fill factor: fringe finder easily recognizable; will contact MattiaM to give collection of parameters from several VEX files and LOFAR observations to scientist for verification of diagnostic potential of these parameters. Spent time on provenance for docker images: tool to help 3yr old, no maintenance – impossible to reproduce ... (containers are #FAIL too). CormacR (and others) asked for Py3 ParselTongue – BillC has Py3 Obit on github; this builds on CentOS (casadev) and ubuntu 20.04 (eee-dev); used Python 2to3 tool to help port ParselTongue to Py2/Py3 compat; now being packaged for Ubuntu "Focal" (20.04). Q[Paul]: CAN HAS "TVSPLAT" application yesno? A: might be able to reverse engineer protocol. AdamD/CormacR recruited as testers.

Des[absent at ZWURM but mailed in report]: still fighting with CASA: copy constructor dumps core: alerted GeorgeM and trying a workaround. Was asked to be member of review panel for Canadian radio project and accepted. Looking at LOFAR self-cal and need to start to prepare for CASA workshop lecture.