

ZWURM, 08-02-2021 14:00 (ZWURM through Zoom because of #COVID19 house quarantine/wk48)

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

General announcement: the first four ZWURMs of March 2021 (Mar 1 - Mar 22) will be shifted to 15:00 CET because of clashes with prior arrangements for some R&D staff.

Des: continue to analyze and fix EHT related problems in the fringe fitter and CASA. There is an outstanding request by MichaelJ for being able to combine polarizations during fringe fit, will look into feasibility.

Aard: Attempted to get Jupyterhub access for Ilse, but access through VPN (specifically: the redirect after login) does not work. [Paul:] external IP + VPN access is difficult to make work anyway, won't work immediately, but is not unique so (basic) solutions are available. Passing of tokens from login to docker container now works (using the "refresh" token) - can use it for container access to resources. Architecture for having private and public versioned notebooks not clear and may not easily be possible to have per-user per-experiment privileges on same git repo: need follow up meeting. Report from Bert: MPC truly slow but nodes idling; m-nodes in job reaaally slow under shell access; drop from job = x4 speed of correlation; known diffs to n,o crates: all but two m-nodes are on 18.04, m crate was physically shut down ([Mark:] i,j,k,l nodes also on 18.04). [Mark, Harro]: maybe good time to look into bottleneck (output node buffering integrations and only write if complete and in order) and fix.

eBob: Enabled per-channel delay interface in runjob, save in profile. VM for pySCHED plot interface testing up-and-running and operating. Added setups for next session to pySCHED catalogs. Spent time on investigating NorthStar observing band <-> max data rate bidirectional dependency fix but might prove to be impossible. [Mark:] How about a jive5ab that does not stop reading packets on error but ignore? Will do.

Paul: @ASTRON today; Jupyterhub server arrived but problem: no more power outlets, discuss w/ MartinL. cl2/3 boot drives moved to different PCI slot so now BIOS sees them. Enabled LDAP auth for a server/service Des needs. Will attend two-day TiFOON conference. Haven't had time for WR testing still. Regarding slow cluster m-nodes: propose to do all-to-all network test.

Mark: Attended EU-VGOS meeting, presented EVN handling of polconvert and multithread/multistream VDIF data; attended ESCAPE meeting(s). BenitoM: new polconvert please? Can do > 1 linear pol station; installed -> not right version from vague repo -> IvanMV's private vsn -> BenitoM now testing. JIVE wants > 1 calibrator for solving, polconvert only allows one at the moment: possible solutions (1) ask IvanMV to support > 1 FITS file or (2) create bigger FITS file with more sources in or (3) handle completely at MS stage (current plan

was: solve using FITS, apply on MS, idea (3) do solve on MS too).  
MinghuiX: trying CASA on EU-VGOS data -> found erroneous FITS-IDI files (UV\_DATA table has corrupt rows): wrote script, use heuristic ("baseline == 0") to check if affected and write new FITS-IDI with filtered (correct) rows, is quite efficient. Script added to casa vlbi repository and maybe raise @vlcoffee so supp sci and users can run this script if their FITS-IDI files are affected. Both PRs for CASA5.8/6.2 are now merged (gaincurve, ACCOR corr dep flags), only documentation issue remains, has mild SEP field surrounding it.

Ilse: EHT notebook: data in Pandas dataframe = powerful; AGN working group requested to process another three sources, although process from data to PI vague. OlgaB makes progress on spectral line notebook. Q: is there a way to run a number of notebook cells automatically? A[all]: no, and that's for a good reason. Attended many meetings; planning diversity workshop; laptop came back fixed (yay); attend V0 school this week (four days) - tutorial written for Linux but Mac versions of the tools have menus etc in different places (ouch).