Notes for CASA56 in DARA tutorial

For the LOC: participants should download all materials (parts 1-3) prior to the meeting

1. Adjust the opening to reflect the correct CASA version
2. Mention the telemetry notice: this is normal behaviour for CASA
3. Mention the notice “Crashreporter initialized”: perfectly normal
4. The help() function will be discontinued in favour of the [online CASA docs](https://casa.nrao.edu/casadocs/casa-5.6.0)
5. There are some warnings when importing FITS-IDI, these are benign
6. 4B: Are the diameters and axis offsets important for this tutorial? Or could we skip that?
7. 4B: it says check the logger, but there is no output there, what should I check for?
8. 4C: generating the Tsys calibration gives a load of warnings, that is OK
9. 4C: the plotcal task will be deprecated, plotms is now used for plotting calibration tables, if possible can we use plotms in the tutorial? Or at least note that the task will disappear soon.
10. 4C: when inspecting Tsys, how do you identify bad points? And how do you flag them?
11. 4D: CASA makes an entry to the flagversions every time a task is run. Giving the flagversion backups a good name can be very helpful. This is done with the ‘rename’ option in flagmanager. Saving the flags to a separate file (using ‘save’) is useful after all the a-priori flags are done, as it can be used to restart the calibration without having to manually flag the data again.
12. 4D: why flag the SV data completely and not just RR?
13. At the end of section 4 is a good point to save the flags to an external file
14. 5A: the first plotms command has a comma behind the timerange, making it impossible to copy and paste without error
15. 5A: first plotms command has avgtime=’120s’ this should be avgtime=’120’
16. 5A: is ‘nearest’ the default for interpolation? If so, why specify?
17. 5A: there are two ‘nearest’ definitions for Tsys but one for gcal, explain why?
18. 5A: Note that the logger window provides interesting info on the progress of fringefit: number of iterations, SNR, and found solutions should be checked. If the task requires large numbers of iterations (>10 on a bright source) something is wrong.
19. 5A: the applycal task takes some time to run….
20. 5B: briefly explain why it is possible to do multiband corrections on both calibrators at the same time?
21. The phase plots at the end of section 5B have no associated plotms command, it would be helpful if that is included here, so participants can copy & paste. Or we should make sure that a tget(plotms) works, which it didn’t for me at this point. Some playing around is good too, but there may not be enough time to help everyone with this in the plenary session.
22. There is another section 5 for Bandpass calibration, that should be section 6 (and subsequent sections need a +1 too)
23. 6 (bandpass): it should be noted that CASA does a complex bandpass, so it is important to check the phases after bandpass correction, as jumps between spw can be introduced by bandpass. In that case another iteration of fringefit is needed to remove these.
24. 6 (bandpass): the solution plots have no code associated with them to copy and paste, do you want to leave this as exercise for the participants?