CASA flagging, calibration and imaging Workflows for ALMA data

Legende



flowchart structure

AMSR Comments at first glance:

Very helpful! I do not think that the flow charts should be too detailed, they can't really be a full explanation, that should be in comments or well-commented scripts, links to documents etc. (where, also, comments about what can or can't be done in a different order can be found). The flow charts are more useful if they can be taken in at a glance, to help you find your way. So if my comments seem to contradict this please ignor them...

Zeroth stage

- Should there be something to say that a-priori corrections will probably have been applied: Tsys, wvr, antenna position ٠ corrections, split out science data?
- Fixplanets? ٠

First stage Flagging

- 'birdies' is not so much a mm term, maybe just 'bad data'?
- Would it be helpful to put in 'spw selection', 'baseline selection' 'pol selection' (since beginners or forgetful old bats often plot the non-science spw or the AC or the cross hands by mistake...)

Calibration

- Maybe say somewhere that the parameter settings are the usual values for ALMA data but may be varied for particular experiments so users should check.
- In Applycal, it shold say which is for the cal sources and which is for the target

Imaging

- Should the first step be plotms to examine the target, identify line-free and science line channels, and flag any remaning bad data? (not necessarily a full expansion of choices, but they need to do this). Then Select Channels might come at the appropriate Split stages
- Is there any way e.g. use of colour or shading, to signify when one is working on which new data set, as produced by a particular 'split'? It is easy to get confused, especially when trying to re-start a script.

Self-cal

- It would be better to use snr as an improvement criteria rather than just rms?
- I think that what the chart says is:
 - gaincal is run in 'p' mode repeatedly, to improve the model, but not applying the previous 'p' gain table in the next gaincal until the snr stops improving.
 - Then you do apply the final 'p' gaintable during gaincal for 'ap'.
- This could be summarized in words, with a link to a guide as you suggest, e.g. the tutorial and talks from the Jan PI school? There are a couple of other things which should be said but which would probably make it too complicated on the chart, e.g. If the first phase-only self-cal does not produce any improvement, then do not go to 'ap', but try different parameters or abandon it - too faint - and go directly to imaging. 'ap' corrections can also be built up iteratively.





