



Are there significant differences between versions of CASA after CASA 3.3 that make them incompatible?

John Hibbard - 2023-11-01 - Historical Articles

Yes, there are three main issues to be aware of for Cycle 0 data:

1. A major refactor of the calibration table format and functionality took place between CASA 3.3 and CASA 3.4. Calibration tables created in CASA 3.3 (and earlier) cannot be used in CASA 3.4 and later versions. Some of the options and usage of calibration tables are also different in the calibration tasks in 3.4 and above. Starting from the fully calibrated data in a Cycle 0 data package, one can image the data in any later version of CASA regardless of what version was used for calibration.
2. Data taken after May 30, 2012 can ONLY be correctly imported to CASA format using CASA 3.4 and later versions due to a significant change to the ALMA Science Data Model (the pointing table specifically). An easy way to find the observation date is to look at one of the ".listobs" files included with the data packages (the date is near the top of the listing). Older data can also be filled using CASA 3.4 or later and it is worth noting that CASA 3.4 (and later versions) fills the data more quickly than earlier versions.
3. Flagging commands in CASA 3.3 used the task flagdata. In CASA 3.4 the new and improved (mostly in speed) task tflagdata is used instead with slightly different syntax in some cases. However, flagdata commands will still work in CASA 3.4. It is worth noting however, that in CASA 4.0 (and later versions), calls to flagdata will call the tflagdata code, and some flagging calls formatted for old flagdata will not work without modification.