External JIVE & NRAO VLBI for CASA development meeting

Date: 13 October 2016, 4-5PM
Present: Jeff Kern, George Moellenbrock, Ilse van Bemmel

This meeting is set up to discuss the progress of the implementation of VLBI specific functionality in CASA. It coincides with the CALIM2016 meeting, where Ilse presented the current status of the work.

Open JIRA tickets and recent developments since the CASA 4.7 release:
1. There is a caltable generator in the latest release which can be used to generate calibration tables (see JIRA ticket 8561).
2. Des's code needs to be ported to C++ and implemented.
3. Scripts from Mark to handle system temperature and gain curve are still open but should be checked in and verified soon.
4. A script to handle interpolation is written by Mark, George will handle this further in the second week of November
5. The visibility iterator is being migrated (see JIRA ticket 9035)
6. The casacore namespace will change, which will affect our code

In JIRA several of the VLBI related tickets are combined in an Epic container named VLBI Support (CAS-9059). It seems there are some VLBI related tickets not in there: 8541-8543. These are 'orphan' tickets that are still related to the tasks and sub-tasks in the Epic container.

The feature freeze for CASA 5.0 will be on February 2, 2017. After that date there are several weeks to debug and test the code before the release. This includes software verification and scientific validation, some of that can be done in parallel with the porting to C++. Documentation for the new task should be available in Plone at release date. In case we do not meet the release 5.0, there are options to continue the work in a separate branch, and include new functionality in a pre-release for CASA 5.1.

The visualization and flagging of calibration table can be handled by plotms. This is in JIRA as a sub-task to the fringe fitting task in CASA, but it is not a top priority.

In a brief discussion on the solver George mentioned that there is a steepest ascend solver available in CASA (antsol). This solver is comparable to the StefCal solving method.

In addition to JIRA there is Confluence to monitor progress on the development. This requires an additional user account. Instead Ilse will keep Jeff and George updated on the progress by forwarding the minutes from the local JIVE meetings.