

CASA-VLBI monthly meeting

Date: 7 March, 11 AM, Arpad's office

Present: Arpad Szomoru, Des Small, Tammo Jan Dijkema, Ilse van Bommel

Ceres solver

The main discussion is on how to implement the ceres solver in the casacore framework. The suggestion from Tammo Jan is to make this an external dependency. He will inquire with the casacore build team at NRAO if this may lead to problems.

Further discussion continues on whether parts of the current CASA code can live in the casacore framework in the future. This seems possible for some modules. Des will look into this. Waiting for a later moment will increase the amount of work involved.

The CASA calibration framework will be used to select the data that go into the fringe fitting process. The 2D-FFT and LSQ solver step can be done in casacore. The solutions will be exported to CASA and written to a calibration table that CASA can handle. The CASA user doesn't see any of this, but it will be much easier to use the code in other frameworks, such as LOFAR.

Des will contact George and Jeff (NRAO) to discuss the checking in the current work. He has a functional 2D-FFT step, which in principle could go into the CASA repository. The next step will require the solver to be present in casacore, for that we will wait until the current release cycle is completed. Then the ceres dependency can be implemented, and after a few days the solver should be visible from CASA as well.

Actions

6: is held up by the current plotms problem

31,32: JIRA tickets awaiting action from George

36-38: await porting to C++

46: broadened to include weights at all steps of the calibration

48: broadened to include check-in of current code

ID	Description	Owner	Ref.	Due
6	Write report on verification with AIPS (deliverable)	Ilse	151019	Ongoing
18	Process EVN data with CASA	Mark & Des	160115	Ongoing
31	Definition of gain curve in CASA	Mark	160620	
32	Implement apply Tsys for MS	Mark	160620	
36	Define CASA XML template for fringeal	Ilse/Des	160609	Done
37	Verification C++ fringeal against AIPS	Ilse/Des	160609	
38	Benchmark fringeal	TBD	160609	
46	Assess impact of weights	all	161219	Ongoing
47	Discuss Ceres solver with casacore people	Tammo Jan	170213	Done
48	Contact NRAO about CASA 5.0 code check	Des	170213	
49	Verify data weights in simulated MS	Ilse	170213	Ongoing
50	Prepare N14C2 to add to NRAO JIRA ticket	Ilse	170213	Done
51	Contact NRAO casacore build team about plans	Tammo Jan	170307	Done
52	Move components of fringeal to casacore	Des	170307	

Next meeting: March 28, 11AM Arpad's office