CASA-VLBI monthly meeting

Date: 13 February, 11 AM, Arpad's office
Present: Arpad Szomoru, Des Small, Tammo Jan Dijkema, Ilse van Bemmel

Fringecal
We have invited Tammo Jan to discuss how to proceed in getting a new non-linear LSQ solver in the casacore package. Des has selected the Ceres solver, which is a Google package. We decide that it is not a good idea to make this an optional dependency, because that not having the solver available will break the CASA fringe finder task. The build-depencies of casacore need to be adjusted to enable Ceres to build. Tammo Jan will discuss with Ger van Diepen and NRAO how to deal with this.

Des had a problem in implementing the FFT part of the *fringecal* task, as CASA would by default average the data. He now has a new CASA framework in which this does not seem to happen. Contacts in NRAO about the requirements of the software prior to the feature freeze are still quiet. Des will attempt to call them.

Other issues
The plotms averaging issue has been boosted from Helpdesk to JIRA and is a major issue. The CASA people asked us to look at the weights, and how these may affect the averaging. This was still an open issue on our action list, and will now be boosted for Mark to assess when he gets back. The simulated dataset should have identical weights in AIPS and CASA, Ilse will look into that. She is also working on the N14C2 dataset to prepare another test that triggers the problem.

Actions
6: is held up by the current plotms problem
31,32: JIRA tickets awaiting action from George
36-38: await porting to C++

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 fringecal	Ilse/Des	160609	
37	Verification C++ fringecal against AIPS	Ilse/Des	160609	
38	Benchmark fringecal	TBD	160609	
45	Assess Ceres solver	Des	161219	Done
46	Assess impact of gain correction on weights	Mark	161219	
47	Discuss Ceres solver with casacore people	Tammo Jan	170213	
48	Contact NRAO about CASA 5.0 feature freeze	Des	170213	
49	Verify data weights in simulated MS	Ilse	170213	
50	Prepare N14C2 to add to NRAO JIRA ticket	Ilse	170213	

Next meeting: 6 Maart 2017