Workshops :: TBB DAQ Busy Week (30 Mar - 03 Apr 2009, ASTRON, Dwingeloo)

Invitation

The new date for the *TBB data acquisition* busy week is: **Monday 30. March – Friday 3. April**

The main goal of this week is to get the (MAC/SAS ???) software up to a level so that the operators can generate a (not-triggered?) data dump from the TBBs and return a single hdf5-file with all the raw-data to the user. Secondary goals are to include metadata (e.g. the antenna positions) in the file and to get a triggered data dump. (Otherwise these issues are addressed at a later time.)

Side-topics will probably be the inclusion of the metadata into the TBB files and imaging from TBB data.

Everybody who plans to attend is kindly asked to send an e-mail to `A.Horneffer-at-astro.ru.nl`

Schedule

Monday 30.3.	**11:00**	Start with a “kick-off” meeting, splitting into groups
Wednesday 1.4.	**13:00**	Midpoint meeting
Friday 3.4.	**14:00**	Wrap-up meeting (Muller Kamer)
Friday 3.4.	**afternoon**	End

Planned activities

Work on the DAQ

Improve the TBB data acquisition so that the the following is (reasonably) conveniently possible (in decreasing importance):

1. non triggered data dumps into hdf5 files. Including:
   - read out the same (absolute) time range from several stations
   - generation of correct hdf5 files
   - generation of a single hdf5-file (from all stations)
2. inclusion of basic metadata in hdf5 files (not really DAQ), i.e.:
   - antenna positions
3. externally triggered data dumps
   including saving data around a given time
4. locally (on station level) triggered data dumps
5. centrally (at CEP, from beam-formed data) triggered data dumps

Other activities

(Activities at lower priority, mostly done by people not directly involved with the DAQ work.)

- generation of a beam-formed time-series (Kalpana, Olaf)
- imaging of TBB data (Sef, Heino, Lars)
- GUI / data inspection tool (Arthur, Heino)

Please add to this list, or send me(AH) an e-mail!

Participants

- Kenneth Anderson (Fri. and maybe more)
- Lars Baehren (*)
- Arthur Corstanje (*)
- Heino Falcke (Tue. and Wed.) (#)
- Jean-Mathias Griessmeier (from Tue. or Wed. on)
- Joerg Hoerandel (Wed. and Fri.)
- Andreas Horneffer (*)
- Olaf Scholten (Tue. and Wed. afternoon)
- Kalpana Singh (*)
- Sander Ter Veen (*)
- Sef Welles (*)

(*): Room booked in the ASTRON guesthouse (#): Room booked in the hotel De Borken

Tasks

Task	Responsible	Status
Adjustment of initial timeout when starting up tbb2h5 to start listening for data coming at a designated port	Baehren	done (r2502)
Resorting of incoming data blocks in tbb2h5	Horneffer	done (r2504)
Debugging of LOFAR_TBB: gives segmentation fault when adjusting blocksize after construction	—	pending
Debugging of DAL routine to read string-valued attributes; after earlier changes on in some of the basic DAL functions by Joe, the retrieval of such attributes fails and therefore also causes TBB_LOFAR to crash.	Baehren	done (r2503)
Start writing out TBB data from the oldest entry in the buffer, such that frames sent off to CEP at least leave the station in chronological order	Donker	done
Clean up command line parameters passed to tbb2h5; some of the currently expected values appear not to even get used in TBB.cpp	bahren	pending
Create dynamic spectrum from dump of TBB data	ter Veen, Griessmeier	pending
Debugging of Beamformer: the retrieved weights which are applied to the data are all unity, which means that somewhere along the line values are not passed correctly	Baehren	pending
Reduce the output speed of the TBBs so that no packages are lost	Donker	pending

Task	Responsible	Status
Fix tbb2h5 so that reading from a socket works	Horneffer	done (r2514)
Fix tbb2h5 so that it can handle different dipoles.	Horneffer	done (r2518)

← Meetings