Correlator Implementation and Control meeting, October 18 2012, Arpad's room

present Jonathan, Salvatore, Harro, Des, Arpad

action items

Jonathan: test fix of Erlang performance problems reading UDP packets (on hold)

Jonathan + Salvatore: figure out how to make packet spacing adjustable (on hold)

Harro: save N11L4 scan 11 reference data to LTO4
tapes arrived, has been backed up, still comparing

Jonathan: inform Des when buffer addressing documentation is updated
done on the spot, Jonathan will send additional email

Harro: create more N11L4 VDIF data
not done

Harro: talk to Mike Sipior re casa
not done

Harro: upload the timing/synchronization document to the wiki
done

updates

–Jonathan: problem with resetting transceivers, reset pulse not long enough, now fixed. FFT needs reset pulse between integrations. Synchronous reset needs way too many resources, so asynchronous reset used (pulse of 4 clocks). Enough time to make sure the reset will work and system will settle (100s cycles or so). FIFOs reset (between DDR and filterbank also done asynchronously. Implemented application reset, used at end of scan, reset all that needs to be reset.

Timing issues in BN again, after update of Quartus. Lates version of DDR IP, lots of timing issues. No option to go back one version, FN works very well now, timing no problem. Might be possible to relax some timing constraints in BN.

Arpad asks about stuff of Jintao, he's done lots of modelling, some VHDL.

Not very likely it will be finished before he leaves.

-Des: forgot mapping of VDIF threads and channels. Now done. Aside from that, all logic is in place, maybe does not compile right now but basically ready for testing.

-Harro: version of j2ms2 that will take JUC data and get out a MS. Storing of data not yet built into control system, although Erlang code exists, and is being used.

-Arpad: Paul has ordered module for switch to hook up second UB. Some connections to UB2 in place, but extra module in power supply seems to be needed, has been ordered? What about clock signal? Arpad will talk to Martin.

-Harro: asks for action on him, write memo on output format and structure

- in general: Apart from timing problems in BN, everything ready for first tests. Which is (nearly) great.

- next meeting: two weeks from now, November 1, after coffee