

JUC Meeting, 14/3/2013, Arpads room

present Jonathan, Salvatore, Harro, Des, Arpad

Jonathan:

4sec data limit is fixed, still needs testing

Des had problem with first second that was missed in data stream, system could not catch up. Jonathan made a fix that seemed to fix it. Discussion ensues. Harro claims that the synchronisation will not work properly anymore. Discussion about integer second offsets and fractional (clock searching). Not a good idea to put that into the delay model, not designed for it for one thing, offsetting the read pointer would work (when reading from DDR) but probably best to offset the position in DDR, will be done when the packing of DDR is fixed to allow any size of packet. Validity bits may cause a problem, one per packet and per row now, but if more packets in one row?

Some discussion about set_batch, which really should be once per second only, after which the time is bumped up by one second. Otherwise the synchronisation will again not work. Jonathan will fix this.

Application reset in BN. Needed to get rid of the last bit of data from the last scan. Might be other ways to flush last data.

Salvatore fixed the issue with packets from unused nodes. Whether it is related or not, Des sees less packet loss now.

Sergei seems happy with the results of the PFB after increasing the signal strength. Salvatore put balanced truncations everywhere, but unclear if this improved anything as the increase of signal already improved everything. Might be interesting to test effect with decreased signal strength?

The Astron guys re-used the multichannel modifications. Astron also put in rounding instead of truncation. Not clear if we need that, or even if it is any better. But as long as Sergei thinks the results are good, then there probably is no reason to go on fiddling. In the noise.

Jonathan is testing with fractional delay, does not quite agree with prediction of Sergei. Harro suggests to do matlab simulation.

Salvatore: new implementation of fractional delay module, going from 4 to 8 bits resolution does not give a dramatic increase of needed resources, lookup table is now created on the fly. Initial results look good in simulation.

Des: control system can now handle noisy sine waves. Went from scan 0 to scan 11, in order to be able to compare to SFXC. Missing first second bug, but also other problems. Working on it. Doing multiple subbands, hardly packet loss. Packet loss probably caused by network, delay needed with reading data out of BNs. Need staggering. Harro will work out requirements for that.***action

Jonathan: Missing integrations still happening, not sure on both boards?