Correlator implementation and Control meeting, 17/01/2013
11.00 local, Arpads room
present Jonathan, Salvatore, Harro, Arpad
Des by conference call

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)
Des: investigate Suse and Erlang, how to keep Erlang synched across
platforms
#still unknown

Jonathan: mangling of packets was caused by an incorrect clock on signal
taps. Simply no packets at all sometimes. Traced problem to transceivers,
soft reset has cleared problem. Long term solution: modify global reset
(maybe not long enough), or use newer 10G IP, which involves some work.
Maybe simply do soft reset before every run. Until now, this fixes problem
every time, but no guarantee... For the time being, leave this solution.

Truncation of fine delay value fixed, but fix left a problem with validity,
which has been fixed by an extended pulse.

logic to skip samples not yet tested

2 bugs left (or so it seems). One caused by packet loss, network problem?
Since Monday. Ask Paul ***action Jon and Salvatore

Other bug: occasionally integration missing, one in hundred. Signal taps
in, looking.

Des: data goes in, often zeros come out. Not predictable. Error message
rings bell with Harro, Des is probably using old Erlang code. Des
complains about FIFO never filling. Some discussion about working of
FIFO. As long as correlator faster than sender, should never fill up... Time
is in write-only register, should be readable. More diagnostics would be
welcome. Positions of read and write pointers should be readable
***action Jonathan
Des will try to send real data in batch mode with Jonathans script, first get
script to work.
Jonathan asks about fnstats. Des made some improvements, a list of
names is really needed.