Issues to be discussed on DAQ for telescope test (recompiled from list assigned to me by Higuchi-san)

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1. Gereral layout of VXD-DAQ for telescope test
   * How to migrate EUDAQ (for Mimosa) in Pocket DAQ?
     - Data flow from Mimosa (and other beamline detectors)
     - Slow control
   * Network topology
2. Prospect for Pocket DAQ
3. DQM implementation
   * DQM for SVD (PocketDAQ)
   * DQM for Onsen
   * DQM at mini-express reco
4. HLT
5. Procurement of PC equipments for test
6. Dry-run test bench
   * At DESY
   * At KEK

3. DQM

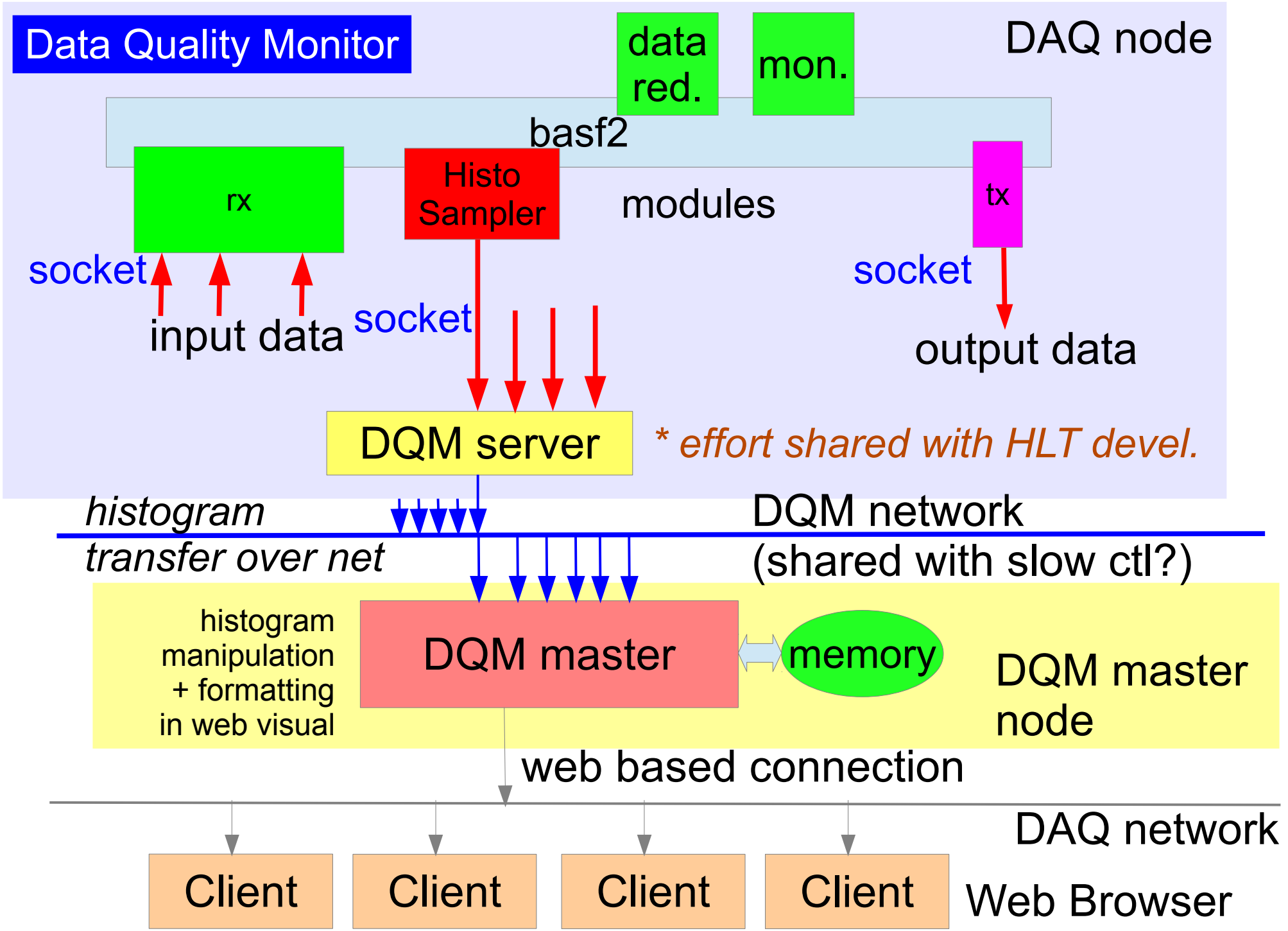
- DQM framework is provided as a part of Pocket DAQ.

- Histogram accumulation can be done any of
  * COPPERs
  * Readout PC 1
  * HLT
  * Readout PC 2
  * Express Reco

  where basf2 is supposed to run.

- Actual monitor codes are supposed to be provided as basf2 modules by each detector group.
  * SVD
    - On COPPER(diagnostics) / Readout PC 1
  * Onsen :
    - “UDP->TCP conversion PC”?
  * VXD (SVD+PXD)
    - mini Express Reco.

  Who are responsible for the codes?


Data Quality Monitor
data red.
mon.
DAQ node
basf2
rx
Histo Sampler
modules
tx
socket
socket
socket
input data
output data
DQM server
* effort shared with HLT devel.
histogram transfer over net
DQM network (shared with slow ctl?)
histogram manipulation + formatting in web visual
DQM master
memory
DQM master node
web based connection
DAQ network
Client
Client
Client
Client
Web Browser

Event display

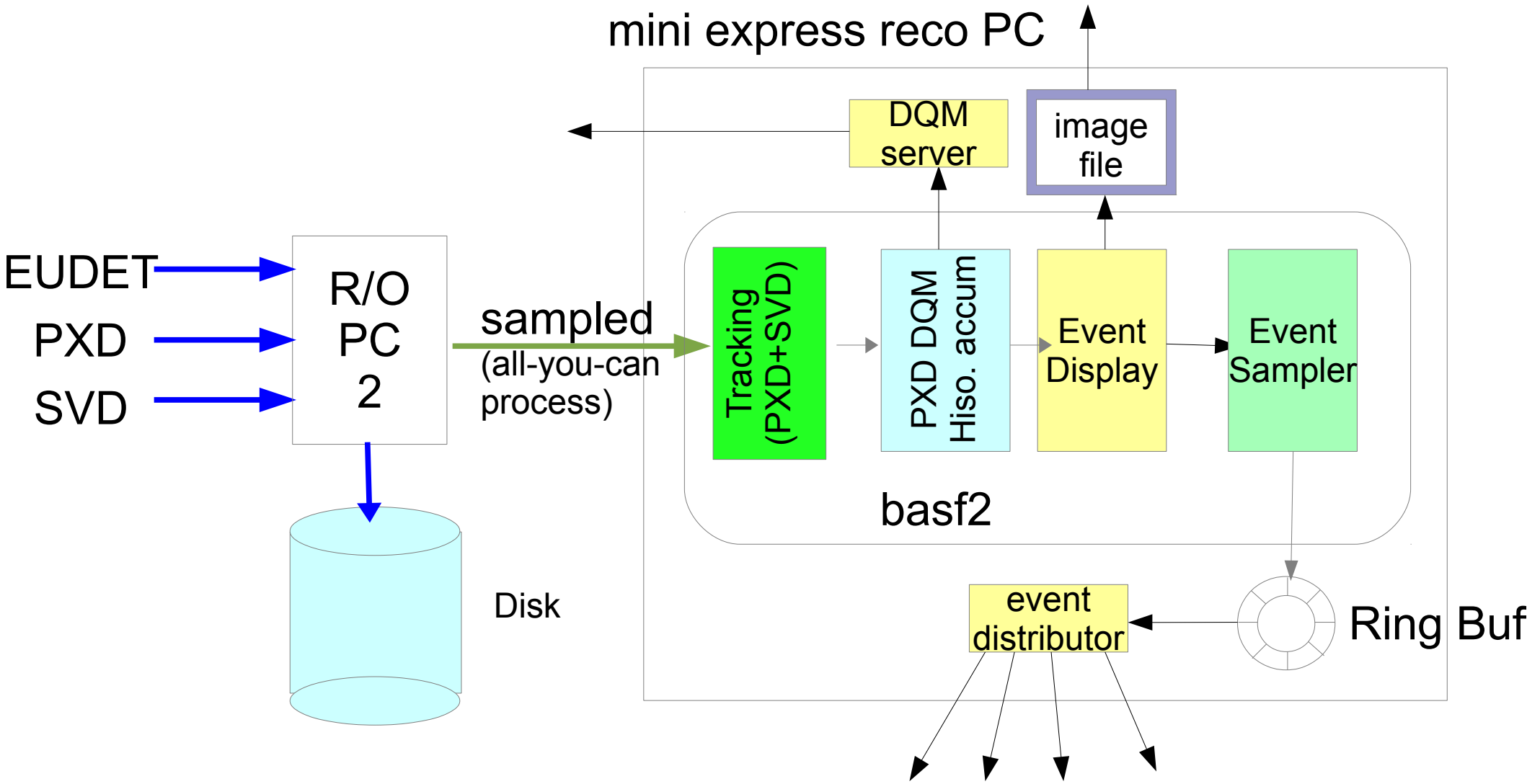
- SVD+PXD are available on “mini express reco”, and event display of hits with reconstructed tracks is supposed to run under basf2.

- Event display is supposed to be provided as a basf2 module.

- The image is dumped in an image file every 3 sec. (for example) so that it can be referred from web.
  <- web server has to be implemented somewhere which shares the file system.

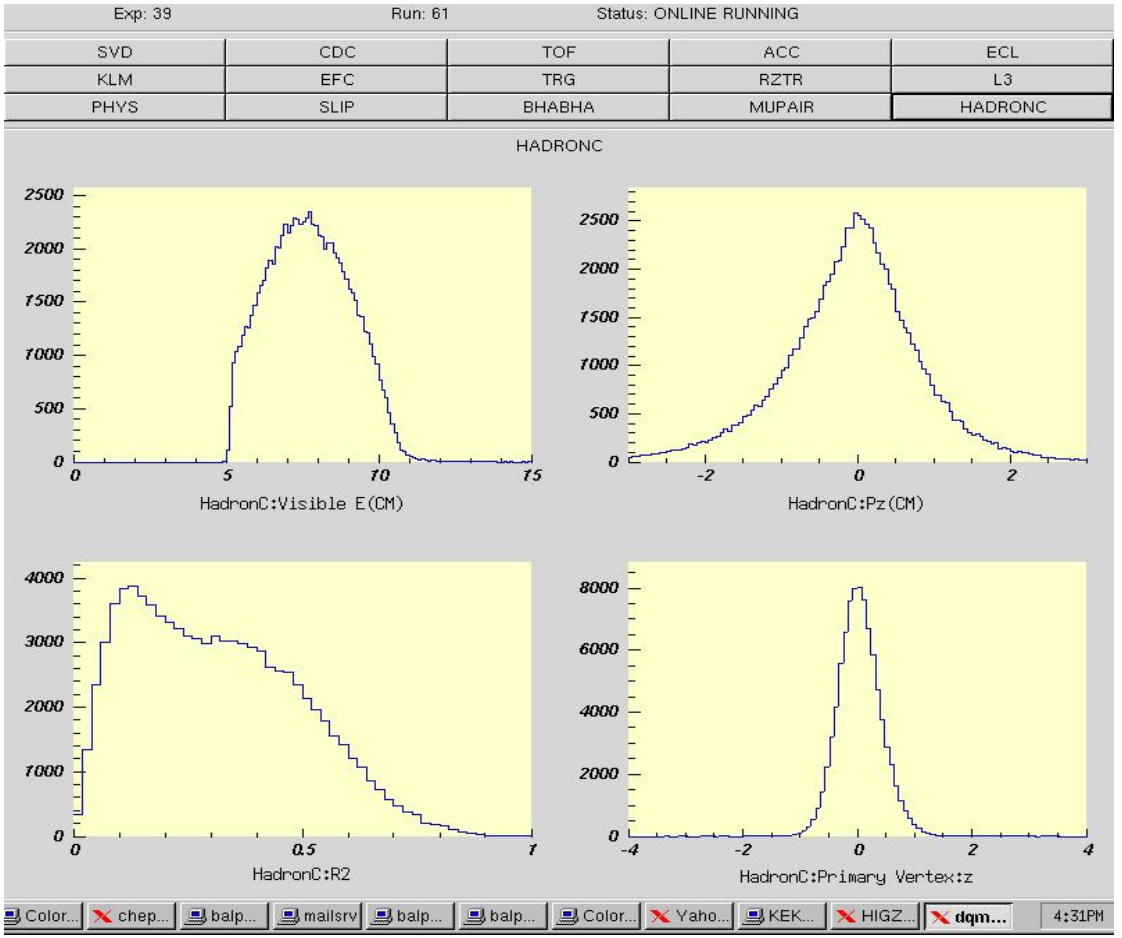
- In addition, sampled events (at low rate) are kept in memory to be distributed to ourside over network (event server), for the detailed monitoring by experts.

Data monitoring with mini express reco



GUI for DQM

- Minimal histogram browser on shift console



* By clicking button on the screen, corresponding set of histograms will be shown.

Could be improved, but cannot guarantee by the time of telescope test.

Belle's browser

- Try to prepare something similar

→ All histogram images will be placed in files and updated periodically so as to be referred from web.