

Run12 preparation

polar. mtg.
21.12.11

What's up? Some points I thought of:

- H-jet: new detectors? DAQ checkout (*starting now...*)? α runs?
- MUX: problem in Yellow chan. switching
 - broken parts, replacements arrived, install Thursday
 - in uncertain state, affect Blue also? (pulser amplitudes varied...)
- Marker for run types (sweep, test, etc.)
 - implement e.g. menu in RHIC operator application?
 - where in data chain?
- t_0 scintillators
 - PMTs (10 Hamamatsu H6524) have arrived
 - mechanical housing? (Grigor? help?)
 - WFDs should be ready; HV cables→connectors; need HV supply
 - install after machine commissioning?
- Pulser event identification 

Pulsar event identification

Recall raw data file has:

- Each event: chan. #, **rotation #**, **bunch #**, amp.&time info
(1 rotation = 120 RHIC bunches)
- Events are not chronologically ordered; ~in order of WFD readout
- Only way (I can think of) to identify 'simultaneous' events, different channels is to compare: **rotation #**, **bunch #**

Igor implemented 2 new WFD readout channels:

- Primary pulser pulse (what we usually look at)
- Secondary pulse (falling edge, $\sim 8 \mu\text{S}$ later, low amp./high TDC 'echo')

Hope was to use new info:

- Make list (**rotation #**, **bunch #**) of pulser events
- Reject from polarization analysis
- QA analyze pulser events

BUT: requires accurate **rotation #, **bunch #** info each chan.**

Pulsar event identification

Checkout with pulsar runs:

- So far just scanned events 'manually'; only few chan. checked
- Bunch # seems always OK
- Rotation # sometimes 'skips'; counter in WFD?
- Problem so far seems only rotation # for 'primary pulse' chan.;
2ndary pulse, few Si chan. checked all agree (**rotation #, bunch #**)
- Maybe change WFD module w/ suspect rotation #?

But also:

- Need systematic way to verify (**rotation #, bunch #**) correct all chan.
- Only if all ~OK can use to separate pulsar/physics events
- Also need (**rotation #, bunch #**) for coincidences in t_0 scint.

If (**rotation #, bunch #**) cannot be verified to ~work:

- **Proposal: turn off pulsar for sweep measurements?**
(easy in config. file)