FCS DAQ Status

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STAR Installation Status

- **all 81 (78 ADC, 3 IO) DEPs installed and working**
  - ECAL: 48 DEPs installed; 40 in trigger
  - HCAL: 18 DEPs installed; 16 in trigger
  - FPRE: 12 DEPs installed; 12 in trigger
  - Trigger DEP/IOs: 1 stage_2, 2x stage_2 installed and cabled via 4 DEP/patch boards
- **81 fibers tested, all trigger cables tested ⇒ all work**
- **remote power control of DEP crates → done**
- **all FEE controls from DEP tested ⇒ all work**
  - well, apart from FEE attenuation controls (noticed on Mon) -- needs fixing on my end
- **LED pulsing scheme commissioned → done**
  - but we need some "Slow Controls" of the LED system -- TBD
- **some amount of bad readout channels ~30**
  - we might fix some in the next months as time allows
- **DAQ software ready**
  - integration with Run Control → done
  - integration with Event Builders and Even Pool → done
  - e.g. we have an "fcs_led_tcd_only" run configuration already defined and used by Akio
- **A lot of debugging & commissioning of both hardware, software and firmware continuing in the next months**

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Trigger Framework Status

- 1 **stage_3** and 2x **stage_2** DEP/IOs installed and working
- communication between stage_2 → stage_3 cabled and working
- communication between 64 DEP/ADC and stage_2 DEPs
  - cables installed
  - first checks show 62 working, 2 have a problem
- ongoing commissioning: synchronization, bit checkers, etc
- communication between stage_3 and STAR Trigger
  - 16 bit cable is in place
  - discussion with the Trigger Group took place
    - plan is to start with 1 bit and later expand to all 16
  - commissioning plan cleared up (Akio, Trigger Group, TL)
  - next step (soon): need to verify & time in the trigger bits from stage_3 to Trigger

Algorithms

- ## stage_0 and stage_1 exist
  - although they might be tweaked (TL)
- stage_2 and stage_3 are currently dummies made for my basic testing
  - will turn them into a "high tower" trigger for timing tests later on (TL)
- see Akio's talk for the integration and commissioning of the "final" algos

Conclusion

- ADC readout and FEE controls all work
  - we can take data with STAR DAQ
- a lot of debugging & commissioning will follow in the next months
- trigger framework currently being commissioned
  - hardware part is expected to be complete before we lose access
- trigger algorithms in development (Akio)