Electronics and Data Acquisition for E01-006

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Electronics

- HMS electronics currently in use
- No modification to HMS electronics necessary
- Turn off NDET electronics

DAQ

- use same environment as GEn01
  - same CODA database
  - change logfile name
- HMS_only runtype exists
  - does not read NDET fastbus crate
  - reads vmec9 (helicity and event scalers)
  - needs testing
- Performance
  - rates similar to GEn01 (Q2=0.5):
    1kHz ⇒10-15% dead-time
  - smaller event size

Slow Controls

- Central Alarm Handler (CAH)
  also called: The continous-giving-shit-to-the-shift-crew device
  - motivated by the increasing number of applications running and sometimes dying.
  - based on epics alarm handler
  - applications report regularly to CAH
    (backup script, HV controls, liquid levels etc.)
  - Alarm initiated if an application fails to report within certain time limit.