Status BCM1F – CMS (1) - Weekly Meeting 21-Nov-2011

- CMS (1)
  - Frontends until discriminator without problems
  - DAQ hardware: discriminator, LUT (including veto function), scalers, TDC, ADC

  - Observations:
    - Without TDC operation no problems with the scalers
    - WITH TDC operation different failures depending on history
      - 'number of bytes' error (block transfer mode)
      - Scaler rates affected
      - Software 'hangs' for up to 15 s

  - Possibility to use a second VME crate below ours
    - Needs a second controller → VME controllers daisy-chained
    - Daisy chaining not successful: Hardware? Software? Understanding?
    - Goal: second independent hardware setup for investigations by use of CTRL3 & related software
    - → tests of setup, daisy-chaining and software adaptions in Zeuthen
    - Transfer to CERN

Status BCM1F – CMS (2) - Weekly Meeting 21-Nov-2011

- CMS (2)
  - Open Questions:
    - Status of optical bridge – does it need a firmware update? How?
    - Interferences of VME bus etc into discriminator inputs?

    - Operation needs different experts: TDC/scalers, ADC, data analysis…

  - Overall Software Stability:
    - Meeting with online software group in Zeuthen
    - No conclusion yet…

- Conclusions so far
  - No stable system, we started with bright success but cannot keep our promises…
  - High pressure from CMS / LHC control
    - Rates, instant luminosity measurement
  - First priority should be solving all open problems, only then discussion of new requirements and features

Status BCM1F – LHC (1) - Weekly Meeting 21-Nov-2011

- BCM for LHC (1)
  - First module working
    - Geometrical tuning (1.3 m towards LHCb)
    - Ground and shield isolated, improvement in S/N
    - Still no test pulses possible

  - Second module installed – no signal yet
    - Includes test pulses now
    - Test in lab in Prevessin without problems
    - Web access to module control working
    - Problems with fibre routing
    - No actual statement from fibre optics group (checked today)

  - Software:
    - Discriminator, TDC, scaler, ADC – they all can be run
    - Data not published, neither to CMS nor to LHC control, only written to disk
    - Operation needs different experts: TDC/scalers, ADC, data analysis