TDAQ Week (a very superficial view)

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`http://www.hep.ph.qmul.ac.uk/~landon/talks`

Overview... Towards the DAQ/HLT/DCS TDR

- Agenda
- Network view
- Dataflow, ROS
- Online
- PESA
- DCS
- Deferrals

Agenda and planning

Agenda

- http://documents.cern.ch/AGE/current/fullAgenda.php?ida=a021484
- TDR planning
- Overview and views from different angles
- Sessions dedicated to each subsystem
- Wrapup

TDR planning

- Technical editor: Marc Dobson
- Outline draft prepared (52 empty pages!)
- First draft by end of March 2003
- Submission in June 2003

Views

Network

- Level2 and Event Building network fairly clear
- New proposals for Event Filter network (SFI/subfarm connections)
- Monitoring traffic shape and volume is unclear (Working Group)
- Do the RODs need a separate network from Online control network?

Subsystems (1)

Dataflow

- Overall architecture: basically as before
- But various attempts to multiplex/slice the system to defer costs are being studied
- Hardware multiplexing of Slinks into ROBins not favoured
- Multiplexing of ROBins to ROS possible
- Either with “flat scaling” or adding “slices”
- “Slices” have implications for RoIB and Level2

Subsystems (2)

ROS

- Updated ROS URD published recently
- New ROS software has been released
- Combined release with data collection and online soon
- Architecture basically agreed: but still to be validated
- Measurements on bus based ROS: looks good
- No event fragment monitoring from new ROS software(?)
- ...is it required? (Working Group)

Subsystems (3)

Online

- Evolution and regrouping of packages proposed
- Configuration database: read/write access, automatic DAL generation
- Interface to conditions database to be agreed
- Hidden run control states expected (but not defined)
- Distributed error handling and recovery (local expert systems?)
- Will subdetector ROD crates all use similar run controller? (based on ROD/ROS controller skeleton)

Subsystems (4)

PESA

- Core PESA software: well defined schedule of releases
- Very dependent on releases of the offline software (ATHENA)
- E/gamma slice mostly ready, work has started on muon slice

Subsystems (4)

DCS

- Three level architecture as before: global, subdetector and local control stations
- New CIC "subdetector" for common infrastructure and controls (eg racks)
- Interaction of DCS with DAQ agreed
- Use of DAQ databases (ie configuration database) to initialise DCS and to record DCS changes (conditions database) not yet so clear
- NB DCS diagrams of all subdetectors dont include level 1