



DB and Information Flow Issues

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- Selecting types of run
- L1Calo databases
- Archiving run parameters
- Tools



Specifying Runs (1)

- Different mechanisms evolved in each system
- L1Calo
 - Different run types described by parameters in sets of COOL folders (one folder per run type)
 - A few additional parameters set only in IS
 - Mainly choices of which COOL folder and which group of OKS objects
- LAr
 - Sets of XML or other data files with scan parameters
 - IGUI panels to update OKS database and publish to IS
 - LArShifter IGUI panel to control standalone runs
- Tile
 - IGUI panels to update OKS database and publish to IS
 - Scan parameters described how?



Specifying Runs (2)

- For combined L1Calo + LAr/Tile runs
 - Separate partitions for LAr, Tile and L1Calo master modes
 - Should be no need to change OKS configurations
 - Except enabling/disabling LAr/Tile in L1Calo master mode
 - Currently need to use L1Calo and separate Calo panels
 - OK for shifters (if we provide documentation)?
 - Might be nicer to develop something like LArShifter panel
 - But could we update all necessary calo information?
 - Whats the full list of everything that needs to be set?
- Whats missing?
 - How to (easily) choose receiver gains via IGUI panel?
 - Would like this for L1Calo pedestal runs during LAr/Tile calibrations
 - Need to ensure safely back to Physics gains afterwards



L1Calo Calibration DB (1)

- Existing COOL folders for
 - results of each calibration
 - validated calibrations
 - still missing sophisticated validation procedures
 - validation basically manual check of histograms
 - started work on comparison with previous calibrations
 - lists of dead/noisy channels
 - run parameters
 - global configuration
- Additionally (but not yet used)
 - conditions for each run
 - set of towers disabled via resources
- To be added
 - record of user choices for each run



L1Calo Calibration DB (2)

- Still missing
 - Separate noise cuts for cosmics vs physics?
 - Trigger tower timing for cosmics
- Untested
 - Pulse shape, energy scans, saturated BCID settings
- To do
 - Use Oracle DB rather than private SQLite files
 - Would like to freeze all folder schemas first
 - Still not sure if some folders will change (run pars)
 - Receiver COOL DB
 - Is this still a private DB owned by chaouki?
 - If so, also move to production Oracle DB at some point?



L1Calo Calibration DB (3)

- Database update procedures
 - DAC and pedestal runs can be analysed online
 - Though typically done offline with online SW
 - Can easily be updated to online databases
 - PHOS4 and energy scans analysed offline (CAF)
 - Need to transfer new results back to online DB
 - Both to L1Calo COOL database and DB for receivers
 - Not yet tried this



Storing Information about Calibrations

- **Tile:**
 - CIS pattern structure stored with the event
 - Definition from C++/python
- **LAr:**
 - XML files: archived somewhere?
 - Step in the sequence saved with the event (and parameters?)
- **L1Calo:**
 - Sequence number saved in the event
 - Still need to store which type of run...



Tools

- Missing
 - Better validation and stability tracking
 - Noise adjustment via rate metering