



Online Software Summary

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- TDAQ
- L1Calo Progress
- To Do Lists
- Software weeks
- Phase 1



TDAQ etc

- New TDAQ version tdaq-05-04-00
 - Expect at least one more before Run 2
- 64 bit single board computers?
 - TDAQ plan to replace SBCs in USA15 (also CERN test rig??)
 - Then 32 bit support will presumably be dropped
 - No further SLC or TDAQ releases for external test rigs
 - Seems expensive to replace all our test rig CPUs
 - Freeze present setup on external test rigs for whole of Run 2?
- No common ATLAS IPbus installation yet
 - But it seems it will be provided one of these days...?



Progress

- PPM nMCM, CMX, L1Topo
 - See separate talks
- CPM/JEM
 - Menu, HW configuration and simulation updates done
- Readout
 - Event viewer for Run2 event formats
 - Updates for CPM and JEM ROD simulation (but not CMX)
- Miscellaneous
 - Build scripts now support both 32 and 64 bit



To Do List (1)

•PPM

- Database schema for new functionality
- Simulation update for new functionality

•CPM/JEM

- JEM updates tested OK? CPM updates still need testing?
- Both CPM and JEM need input timing recalibration for +5ns

•CMX

- Configuration scripts need moving to cmxServices
- Decide on whats really needed in automated timing scans

•L1Topo

- Simulation updates (readout) needs testing
- Configuration needs to be implemented
 - Framework exists but is still rather empty



To Do List (2)

•Readout

- Online bytestream decoders
 - Unfortunately Steve has not had time: so I have started on this
- Still need ROD simulation of new Glink formats
 - Mainly CMX, but possibly also some JEM fixes
 - Need a volunteer (or else me later)

•Database

- New COOL folders needed for new MCM functions
- Provisional new folders added for CMX and L1Topo
 - Not necessarily final
- Still using sqlite file at point 1
- When we are confident, add new folders to Oracle
- Ideally by M7?



Future Software Weeks

- Suggestion for the rest of the year
 - 6-10 October (week before M6: 13-17 Oct)
 - 3-7 November (also Atlas upgrade week)
 - M7 cosmics run starts on 24 November (until 5 December?)
 - Currently no plan for SW week immediately beforehand
- Are these sufficient?
 - How do they match firmware developments?
- 2015?
 - Talk of possible M8 in February(?) due to LHC delay
 - Probably have another SW week before that?



Phase 1 Online Software

- Need to start thinking about phase 1 software soon
- ATCA module support trialled with L1Topo
- So far just an extension of existing framework
- We should consider if thats the best way forward
 - Coherent SW framework for all FEX systems
 - Use of existing HW simulation framework?
 - Though probably follow L1Topo model of shared core SW with offline
 - Model for test vector playback runs with DPS?
 - Databases, infrastructure, etc