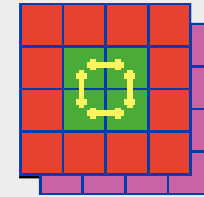




ATLAS Level-1 Calorimeter Trigger



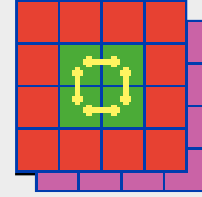
CP/JEP Rod Update

Current Issues

Bruce M. Barnett



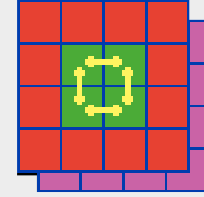
Overview



- Software Status (3)
- Firmware Status (2)
- Module Acceptance
- Plans



Software Status (1/3)



- Repositories

- Test Code Moved to CMT completed

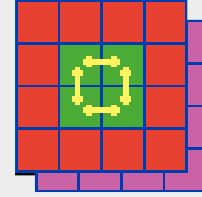
- Uses CpRod, Ttcvi and Dss classes from the module services package(s) (also in CMT).
 - Package dependencies cleansed.

- HDMC:

- Saved latest updates to RAL based repository:
 - (More from M.L. later)



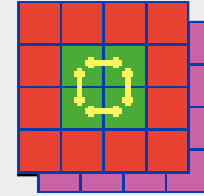
Software Status (2/3)



- Test software update: Incorporate use of L1Calo Database interface:
 - Use to setup specific registers on “load”.
 - Change arguments of most module-service methods to directly access database object (rather than store a local copy.)
 - Reimplement (my) local database to use L1Calo db-interface.
 - Integration session with M.L.



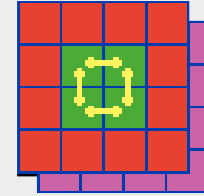
Software Status (3/3)



- Update test software: (To Do)
 - Use a vector-file-reader ('generator') to access Steve's simulation replacement for W. Stokes' code.
 - Restructure to allow use from run-control:
 - Separate Looper, Readout, "dss-kicker", and basic setup/control functionality.
 - Allow for 'kicker' fork and control via shared-memory (implemented as an HDMC pseudo-part.)
 - ROS readout. ROS distribution has now been tested. Need to see what else can be done with what has been provided. (Distribution notes deal with installation, not tips on individual use!)
 - Check Dss Variants (identify un-implemented methods.)



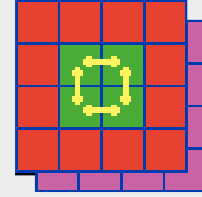
Firmware Status (1/2)



- Dss:
 - New Firmware:
 - Provides arbitrary wrap-around from DSS Source.
 - Allows continuous tests without s/w intervention.
 - Provides L1A functionality, with orbit generation simulating LHC operation. This allows generation of arbitrary but repeated patterns.
 - S/W required:
 - To access roi-mode.
 - To run in arbitrary wrap-around mode.
 - In use now in “compatibility-mode”:
 - Particular Problems? Hints ...



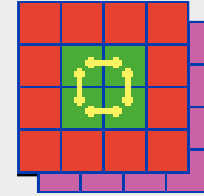
Firmware Status (2/2)



- Rod:
 - Still need soak tests with varied vectors.
 - Old (non critical) problem re-identified:
 - Steve tumbled over a stuck bit which I had long ago noted and allowed for ... but feedback to James had been delayed by more dynamic/urgent problems. (should readdress this problem, or change docs.)



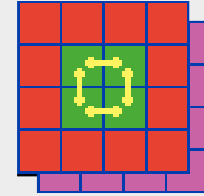
Module Acceptance



- 6 New Rods Await Testing
 - Need to set up a prescribed sequence of tests:
 - Some simple HDMC type tests (like the ID test plan tests)
 - Looper type tests, with a specific variety of vectors
 - ROI, 1-slice, 2-slice, 5-slice ...
 - Controlled by a script with log files
 - S/W needs: exit after n iterations: must be coded.
 - Progress:
 - Basic script now exists.
 - Selection of specific vectors must be done and things placed in a specific location.
 - Code isolated (thanks to CMT).
 - Instructions must be put in place.



Plans



- S/W:
 - Address priority items:
 - Incorporation with run-control.
 - Modifications for module-acceptance tests
 - Dss s/w to accompany firmware.
- Firmware:
 - Rod:
 - Re-evaluate status and test plan.
 - Multi-slice operation, Rol operation.
 - Drown-tests.
 - New Variants (CMM Rod?)