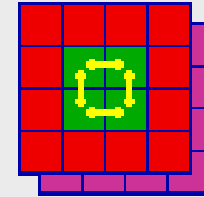




# ATLAS Level-1 Calorimeter Trigger



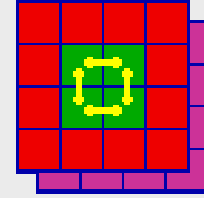
A little “Pot Pourri”

*Module services, ROS status, Linux Strategy,  
Mainz visit to RAL*

Bruce M. Barnett



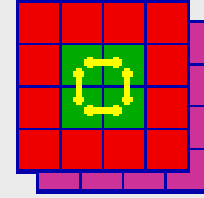
# Overview



- Overview
- Module Services (4)
- HDMC
- ROS Status
- Linux Strategy (2)
- Mainzer Dienststresse



# Module Services (1/4)



## – Dss:

- Progress:

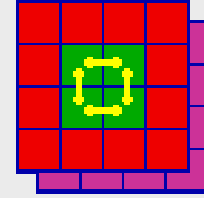
- LVDS support set up
- dssServices now recognises active daughter cards by examining function/revision (0,0 on motherboard, not overridden by daughter-card version).
  - » Deactivates functionality, but HDMC should take note too...

- Specific Needs

- testing of LVDS support.
- Generalisation to allow use of more than a single daughter card of any particular type
- addition of gio support.
- Implementation of ctp-emulation (clock, orbit, L1A)



## Module Services (2/4)

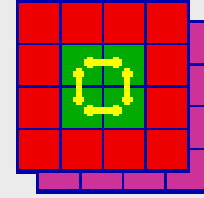


### – Jem

- Much work (Cano)
  - moduleServices subModules
    - » Parts files
  - Interface to database
  - Interface to testVectors package
- Needs understanding of how to update test vectors on-the-fly ... similar to calibration problem.



## Module Services (3/4)

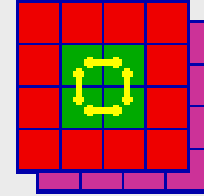


### – Ttcvi

- Fixed rebuild lists (and cmt requirements file)
  - Ttcvi has some D16 registers and some D32. Hence one needs register access classes to be generated for both.
    - » Long format asynchronous cycle (“Send”) register
- Added module specific methods:
  - setDeskew1() and setDeskew2()
  - setCoarseDelay1() and setCoarseDelay2()
  - setControl()
  - foldDelay()
  - configureClockI()
    - » Should merge this with what Gilles uses.



## Module Services (4/4)

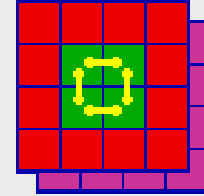


### – General Needs:

- Generic monitoring methods
- Creation of “allModules” package, incorporating interfaces for stand alone use:
  - myHdmc for all modules
- Addition of generic database interface class encapsulating onlinery
  - (similar to Daquery class in moduleServices).
    - » Pay attention to dependencies when choosing where to place this. Probably “allModules” isn’t the right place
- Creation of service package from cpRodTests service classes (general test infrastructure.)



# HDMC



## – Jem

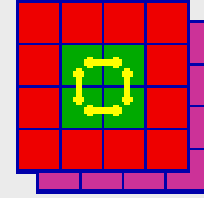
- New Gui and Parts added to repository
  - FPGA configuration
  - LVDS status

## – General

- Lack of integration in I1calo continues to be painful
  - Not “urgent” but “painful”
  - Should we “bite the bullet”
- Database not integrated with I1calo.
  - More work. Should ensure this is itemised in workplan...



# ROS Status

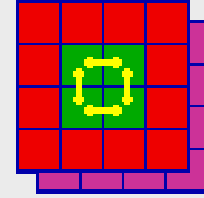


- New OO ROS
  - is RH7.x compliant (2.4 kernel)
  - has superceded old ROS s/w, but is not yet compete:
    - S-Link interface is, apparently, available ... need to test
    - Code is available
      - Tags for rh7.2/gcc2.96 rh7.3/gcc2.95
      - /afs/cern.ch/atlas/projects/tdaq/DataFlow
      - With a few hints
        - » <http://atlas.web.cern.ch/Atlas/GROUPS/DAQTRIG/ROS/ros.htm>
      - Have downloaded and (almost) complied...
    - Monitoring:
      - Access to event-fragments:
        - Future of functionality under discussion ... need to make our needs formally clear... Rod-Crate or ROS level access.





# Linux Strategy (1/2)



- Certification Committee

- Provide input and wisdom (?) in coordination of CERN RedHat release strategy

- Chair: Jan Iven, Reps from expts (online/offline) and CERN divisions.

- 7.3.1 “certified”, but with a few Teething problems:

- » Afs problems
- » Sheduling difficulties: threaded applications in ROS which yield control then lay dormant too long

- 6.1.1 and 7.2.1

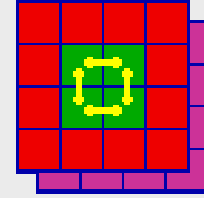
- » frozen (except for security updates)
- » will have support terminated June 2003

- 8.x

- » mid 2003?



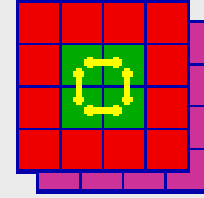
## Linux Strategy (2/2)



- How does this affect us?
  - Should track release schedule.
    - Why:
      - New Online and ROS releases will do so.
        - » ROS already uses 17.2
    - Ramifications:
      - Will need to support gcc 3.2
        - » Advantages: stable C++ internal interfaces. No more library incompatibilities!
        - » Disadvantages: work.
    - When?:
      - » Mainz already uses RH7.3
      - » Birmingham prefers to wait for 8.x ?
      - » Propose test installation at RAL January. Subsequent provision of systems to Birmingham and RAL-concurrent machines.



# Mainzer Dienstreise



- November 26 – 29: Visit to RAL
  - Cano Ay, Uli Schaefer, Murrough, Bruce
  - Hands on sessions. Discussion. Generally good fun.
- Jem integrations:
  - moduleServices
    - » Module, Submodules: basic framework
    - » Parts files (congruent to above)
  - runControl
    - » Controller integration
    - » Vme address mapping
  - dataBase
    - » Setup. Basic Access ... since then, progress on interface to testVectors package.
- Problems:
  - Non standard systems in Mainz slowed progress.
    - » But every one learns!