



Online SW Changes for new FW

Murrough Landon
15 December 2011

- Trigger menu
- Module Services
- Simulation



Trigger Menu

- L1Calo uses two trigger menu interfaces
 - Official trigger database
 - Via DetCommon API: this already has support for eta dependent thresholds, just passing the integer eta of the low edge of the module.
 - No L1Calo changes needed?
 - XS range (mistakenly) already allows 7 bits (0-127)
 - Should check if DetCommon has any hard coded 0.4 or 0.8 widths
 - NB jet and energy sum “element” thresholds not yet implemented
 - Would need to have them defined somewhere, eg COOL folder?
 - These would then be a kind of calibration, not related to the trigger menu
 - Private OKS trigger menus
 - Still used for odd situations (eg for 15 slice readout)
 - Again no changes needed?
 - XS range (mistakenly) already allows 8 bits (0-255)



Module Services and Simulation

- CPM and JEM module services
 - Changes needed to define new threshold registers
 - Load new threshold registers with values from the menu
 - Looping over eta values within the module
- CPM and JEM simulation
 - Similar changes needed in the simulation
 - Some difficulty anticipated getting menu data to jet simulation?
- ROD (and run control)
 - Some changes needed for mid-run reconfiguration
 - Add RESYNC command to allowed user broadcasts (done)
 - Pass RESYNC to ROD (done)
 - Implement relevant action in ROD module services (done)
 - Updated userCommand() method to load latest ECR into new register