

DAQ/PVSS Software

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summarising work by Stefano, Kazu, Kurt, myself and others

OVERVIEW

- PVSS Recipes
 - New Tell1 Functionality
- PVSS/ECS Changes
- Tell1 Changes
- Pit Changes

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







PVSS RECIPES



- PHYSICS/DEFAULT
- NZS
- TESTPULSENZS
- TESTPULSEZS
- HVSCAN
- CABLETEST
- ADCDELAYSCAN
- PULSESHAPESCAN
- FAKEBEAMSCAN
- TESTPULSESCAN
- ADCGAINSCAN
- TESTCHARGESCAN
- TED/TEDNZS

NEW DAQ RECIPE FEATURES

- Round Robin
 - Needs new decoder implementation (in dev)
- NZS on Error

Sub-Svstem	State	
VELO_DCS	Drunk	
VELO_HV	Drunk	
VELO_DAI	At Work	
VELO_DAQ	Sleeping	
VELO_RunInfo	At Work	
VELO_TFC	Called on piquet	
VELO_HLT	Sleeping	
VELO_Storage	Sleeping	
VELO_Monitoring	Sleeping	
VeStepDealer	Sleeping	

- Generated Data
 - Special procedure - see twiki
 - requires direct Tell1 access
 - Essential for bit-perfectness checking
 - Parameter uploading tests

PVSS/ECS CHANGES

- PVSS project code now in CVS
- Regular PVSS backups /group/velo/backups
 - both recipes and projects
- PVSS upgraded to 3.8
 - caused major headaches
 - Tell1 and DCS projects suffered massively
- Faster Tell1 config
- Faster Parameter Uploading
- Substantial work on Motion system
- Central PVSS Upgrade Management
 - VELO specifics handled by us
- PVSS Vetra

TELL1 CHANGES

- Upgraded to Firmware 3.2 on all Tell1s - many fixes for timing
 - FW for 2009/10 unless major bugs found
- Moved Tell1 Source ID to Software Sensor Number
- Mapping stored in Liverpool Commissioning Database
- Significant improvements to Vetra ease of use at the pit (Eduardo's talk) - DAQ turnaround time ~ 15 mins
- Can check bit-perfectness using Vetra

CHANGES AT THE PIT

- New Monitoring screens (two currently and two more coming soon)
 - One for LV, HV, Temp., Interlocks.
 - Two monitor for online histo presenter
 - One for closing/beam monitoring
- VELO Stations upgraded to Linux
- Lab 8 - Velo slice
 - PVSS/New FW/Timing development
 - essential during running



DOCUMENTATION

- Databases
- Modules - <http://hep.ph.liv.ac.uk/velodb/velo1/>
- Commissioning - <http://hep.ph.liv.ac.uk/velodb/VELO/>
- Twiki - <https://lbtwiki.cern.ch/bin/view/VELO/WebHome>
- Where is the raw data? Online RunDB
- Elog - <http://lblogbook.cern.ch/VELO/>
- Which data do I want?