



### ECS

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#### Outline

- · DCS
  - Structure
  - Status
  - Alarms
- News on HV and LEDs
  - See Anatoli's presentation
- Detector monitoring
  - See Jean Luc presentation (+ TVB)
- Global Control Project Integration
- Others
- Plans



# To face detector operation

- We need to reliably
  - Know the detector state
  - Act upon it
- Implied elements are
  - DCS
    - VFE Temperatures
    - Power Supplies
  - Racks
    - Turbines
    - · Crates
  - HV



# DCS - now become urgent

# Temperature controls

- PS in principle is now functional
- SPD temperature probes calibrated
  - · See Edu's presentation
- Need to be programmed

# Power supplies

- SPD regulator board switch on operation in DCS
- Coherence of current states and actions
- Study DAI precedence
- How many RECIPES do we have for LV and MV Power Supplies?

### Integrate into new DCS tree

- Changes in the proposed version regarding side splitting

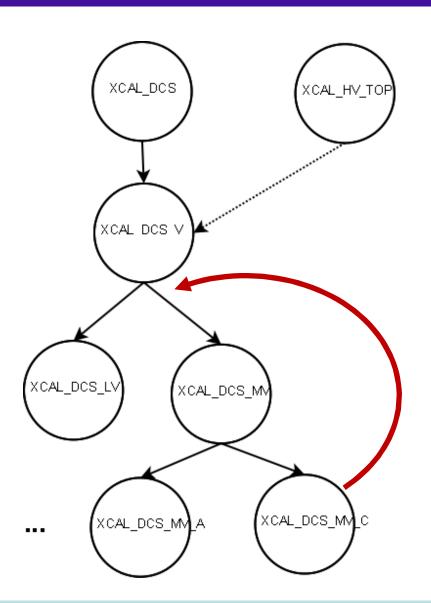


# DCS - following steps

- · Establish two levels of detector alarm
  - Started for LVPS for safety reasons
  - Observe values to establish normal detector behaviour
  - Determine two levels
    - Alarm sent to alarm panel
    - Set DU in error
- Discuss and establish automated actions upon alarms
  - Started for LVPS for safety reasons



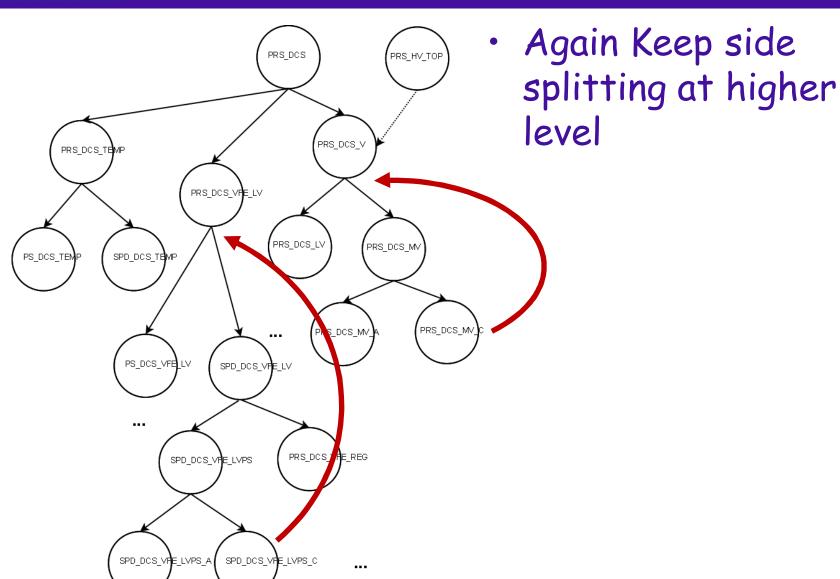
#### DCS Tree - XCAL



 Keep side splitting at a higher level.



#### DCS tree - Preshower-SPD





## Rack Monitoring

- · A nice display tool exists
  - See Jean Luc presentation
  - For rack monitoring and more...
  - Problem: information
- Turbines
  - Is INFDAI reliable enough?
- Crates
  - Temperatures read and stored
    - · TVB, CB, CROC?
  - Establish coherent temperature matches
  - Alarms?
  - Actions?



# High Voltage

- First version of monitoring exists throug HV calo panel
- Might get more precision through Jean Luc
  3D display
- Will HV keep separated from the overall detector operation?
  - CALO\_HV\_TOP Control Unit



# Global Project Integration

- Merge CA1, HC1, EC1 and PS1 into a single project
  - Should improve system efficiency
    - · Less connections between projects
    - Control Machines better balanced
- A dedicated linux PC exists
  - caecs01
- · Clara prepared a component for the migration
  - Thanks a lot
- Everything is ready



#### Others

- Automated restart of projects
  - Now project start is manual through Service +
- Still waiting for a standard backup procedure
- Radiative Source control



#### Plans - Priorities

#### Next week

Unified control project

- In order to setup the DCS structure changes in the new project

#### · DCS

#### Week After Firenze

- Set up new structure and special logics
- Confirm coherence of states and actions
- Estblish order with respect to DAI

#### Along GCW

- Detector Monitoring
  - Display detector information on the Control Room
- Alarm levels
  - DCS
    - Decide Threshold values
    - Program them
  - Crates
    - Decide Threshold values
    - Program them

#### When Available ASAP after

DCS



## More plans

- Follow
  - SPD VFE temperature
  - Radiative source
  - Decision on automatic project startup
  - Automated backup procedure
  - Move CRACKMON project to 3.8 and test
    - · Before GCW
  - Values for alarms