TPC Shuttle & DA status

- Detecor Algorithms (DA)
- File Exchange Servers (FXS)
- Offline Calibration Data Base (OCDB)

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Calibration algorithms

- Calibration algorithms carried out by calibration classes

- DA: Generate calibration data. LDC or Monitoring machine

- Preprocessor -> store calibration data in OCDB object

- Algorithms handled this far:

  - LDCs:

    - Pedestals – AliTPCCalibPedestal – run type = PEDESTAL

    - Pulser data – AliTPCCalibPulser – run type = PULSER

  - Monitoring machine:

    - Central Electrode – AliTPCCalibCE - all run types

Run Types

- New run types are now defined – and implemented in the AliTPCPreprocessor:

  - PULSER
  - PHYSICS
  - PEDESTAL
  - DAQ
  - LASER
  - COSMIC
  - STANDALONE

DAQ DA status

- TPCPEDESTALda.cxx

    - succesfully tested in February

- TPCPULSERda.cxx

    - sucessfully tested in February

- TPCCEda.cxx

    - need to identify laser trigger during physics run
    - should be implemented on monitoring machine

TPC Shuttle Preprocessor

- Pedestal/noise entries included in Shuttle processing

  - Pedestals: TPC/Calib/Pedestal

  - Noise: TPC/Calib/PadNoise

- Temperature maps extracted from DCS for all runs

  - fits performed and stored to OCDB data base

  - new dead band and short runs caused very few points in several fits

  - DCS maps extracted and temperature maps generated for two extended periods (19-20/2 + 27-28/2) – Stefan Rosegger can give more details

- HighVoltage maps installed in Shuttle test setup

  - DCS simulations have not been activated after Christmas, so no tests have been possible

TPC Preprocessor configuration

- Up to the December tests the Preprocessor has failed if there has been any kind of problem..

- Now configurable – if ErrorHandling is set to OFF, whatever is produced will be stored

- Status entry implemented – if ErrorHandling OFF, array of TParameters submitted to TPC/Calib/PreprocStatus

TPC Preprocessor Configuration

- Entered as TEnv in OCDB (TPC/Config/Preprocessor)
- Changes using AliTPCGenDBConf

Identifier	Possible values	Current	Description
Pedestal	DAQ/HLT/HLTDAQ/DAQHLT	DAQ	Source
Pulser	DAQ/HLT/HLTDAQ/DAQHLT	DAQ	source
CE	DAQ/HLT/HLTDAQ/DAQHLT	OFF	source
Temperature	ON/OFF	ON	Record temperature maps
HighVoltage	ON/OFF	ON	Record voltage maps
ErrorHandling	ON/OFF	OFF	Fail if errors

Calibration algorithm on ESD and ESDfriends

- Input – AliTPCseed stored in ESDfriend

- Status

  - Calibration classes

    - AliTPCcalibTracks

      - error and shape parametrizatioClustern, Raw cluster charge spectra

    - AliTPCcalibTracksGain

      - Internal gain alignment ,Charge Angular correction calibration,Sector gain equalization

    - AliTPCcalibAlign + AliTPCcalibAlignment (Optional argument CE plane)

      - Sector alignment (Linear fitters – possibility to merge), (Drift velocity monitor to be implemented)

  - All classes produce QA histograms, graphs, parametrizations

  - Current usage (Development phase)– post processing of ESDs, ESDfriends – AnalysisTask on PROOF