FMD shuttle + DA update

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1. Status of the DAs (I)

- Original (non-aliroot) DA tested in FDR1. Test was succesful and results were copied to FXS.
- New DA code put in aliroot. Three DAs :
  - AliFMDBaseDA: Decodes hardware information from the SOD event. This is needed by all types of runs taken with the FMD.
  - AliFMDPedestalDA: Obtains pedestals which are detector response in case of no physics.
  - AliFMDGainDA: A pulser is used to inject a signal into the detector in order to determine the relative detector response.

1. Status of the DAs (II)

- Code has been tested locally to be working. The DA executables are in aliroot.. RPM to install at CERN still has a few issues to resolve.
- Completion and final testing requires new RCU firmware (because of the SOD event).

2. Status of Shuttle pre-processor

- AliFMDPreprocessor has been in aliroot 3 months. It has been tested to work locally.
- The preprocessor has run many times in the SHUTTLE team's tests and is working.
- The preprocessor was used to propagate a file from FXS, process it and deliver it in OCDB during FDR1.
- The preprocessor parsing of the output of the DA's is also dependant on the new RCU firmware.

3. Run types

- The run types specified in ECS are: STANDALONE, PHYSICS, PEDESTAL and GAIN.
- The DA for STANDALONE and PHYSICS is the same (AliFMDBaseDA) and thus three DAs have been developed for the FMD.
- AliFMDPreprocessor designed to obtain all information, configuration (from SOD) as well as calibration from the FXS files generated by the DAs.

4. Detector calibration algorithms

- The calibrations needed to 'calibrate' the FMD for phyisics require (many) ESD events.
- Only the AliESDFMD objects are needed.
- The needed calibrations include:
  - Sharing corrections.
  - Several particles in one strip definitions.