Pixel RCMS and XDAQ Update

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RCMS – Pixel Function Manager

- Event Handler for handling state notifications from PixelSupervisor added.
- Xdaq2rc class (for sending messages from XDAQ to RCMS) exists only in DAQKit 4-2. But that comes with 64 bit XDAQ which is a problem for our HAL interfaces to the FEC and FED!
- State notification (from XDAQ side) and handling (from RCMS side) could not be tested, ergo, not committed.
- Directory structure in CVS in PixelFunctionManager got messed up. Will try to fix soon.

XDAQ – Pixel Supervisors

- PixelFECSupervisor Panel Level GUI sports new “Reset All ROCs” and “Reset TBM” buttons. Buttons to add FEC Crate Level, Board Level, Panel Level and ROC Level functionality possible now.
- AJAX-ifying FED Low Level GUI is quite hard. Because I am trying to stream SpyDataFIFO, Error FIFO, TTS FIFO etc into an HTML textbox. This is hard to do because AJAX doesn't allow large streams of data to be passed with spaces and line-breaks. If I try to fool it by passing special characters, I have to write the decoder in Javascript. Would be ugly code. Trying to think of a way around.
- PixelSupervisor changed to use the mode specified on the first line of the calib.dat file. Committed. Corrected by Karl and Anders.
- Mask and Trim settings bug fixed. Correctly writing out files from the ROC Low Level GUI too.

XDAQ – Pixel Supervisors

- Starting to take data using radioactive source and external triggers.
- Pixel Online Software needs to be taken through Baseline Calibration and Address Level Calibration. After that, it may be configured for a Physics Run and put in the “Running” state at which point it will no longer interfere with the detector. Data will be collected through the Slink.
- If we do want to spy on FIFO 3, the following must be done/solved:
- It should be possible to turn on and off this spying during the Running state. What to do in the Running state is usually decided based on the “mode” in the calibration object. However, Physics running has no calibration object!
- A workloop should be made that gets started on pressing “Start”, halts on pressing “Halt” etc that should contain the following sequence:
  - Enable Spy FIFO 3
  - Read Spy FIFO 3
  - Disable Spy FIFO 3
  - Append to a file if there was new data in the event
- Bug in the DAC settings slider causes it to skip values – will fix soon.
- Installing the Error Handling system -- DiagSystem.