

XDAQ and RCMS Status

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Address Level Calibration Summary Table

- Please update **pixel/PixelFEDSupervisor** and **pixel/PixelUtilities/PixelFEDDataTools** to get these changes.
- PixelFEDSupervisor creates a Summary Table after each Address Level Calibration.

•A short summary table written directly to console output of the form:

FED # 30

Channel | Overall | UB/B | TBM | ROC 0 | ROC 1 | ...

1 | 1 | 1 | 1 | 1 | 0 | ...

2 | 1 | 1 | 0 | 0 | 0 | ...

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0 = Bad. 1 = Good.

Overall = Product of the UB/B health, TBM health and ROC healths

•An expandable HTML Summary Table is generated and placed in the PixelRun area. It looks just like the console summary at first. But we can click on any of the 0's or 1's to reveal the ROC or TBM peaks as a GIF image, where the algorithm thinks the peaks are, the recommended threshold levels etc. (Remember to enable Javascript on your browser!)

FED Baseline Calibration Summary Table

- Similar expandable HTML summary generated so far and placed in the PixelRun area. It is of the form:

FED #

Channel	Converged	Iteration 1	Iteration 2	Iteration 3	...
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1	1	0	0	1	...
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2	1	0	1	1	...
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0 = not converged, 1 = converged

- The HTML file expands to reveal the TBM signal in that given iteration, the Channel Offset DAC settings before and after the iteration.

Things to Do

- How should I portray the Optical Receiver Settings? (Under development)
- A GIF file of the TBM signal for each iteration is awaiting Steve Stroiney's changes to pixel/PixelUtilities/PixelFEDDataTools.
- A summary in the console output will also be added for convenience.
- Both the HTML files for the Address Level and FED Baseline Calibration will be hosted from PixelFEDSupervisor's Web Interface shortly.

Miscellaneous XDAQ Progress and Comments

- Clock Phase and Delay Calibration writes out a new .dmp file instead of appending to the existing .dmp file.
- The baseline jumping up to > 700 ADC on running the Clock Phase and Delay Calibration could not be reproduced by Mauro and me. Maybe it happened because Anders and Mauro forgot to move the params_fed.dat file after doing the FED Baseline Calibration procedure?
- Observation: The VcThr vs CalDelay scan seems to use FIFO 3 to retrieve the hits. FIFO 3 only works properly after Address Levels calibration has been done. But isn't VcThr vs CalDelay calibration supposed to precede Address Levels to ensure there are hits in the first place?

XDAQ - RCMS Integration

- PixelFunctionManager is able to send the “Initialize” command to PixelSupervisor. When PixelSupervisor is done initializing, it can report its new state, i.e. “Halted”. PixelFunctionManager can respond to this by going into its Halted state. So the basic communication protocol is seen to work!
- However, to “Configure” one needs to pass a *configuration alias* as a parameter that goes with the input from PixelFunctionManager to PixelSupervisor. Is it identical to the parameter “Run Type” that we are allowed to send from RCMS at “Configure” time?
- I have to figure out how to read the aliases.txt or the Pixel database for aliases to present on the RCMS GUI.
- PixelSupervisorGUI meanwhile crashes because it is initially in the “Initial” state when PixelFunctionManager sends the “Initialize” command to PixelSupervisor. After initializing, PixelSupervisor sends the SOAP message “InitializingDone” to PixelFunctionManager (and the state notification “Halted” to PixelFunctionManager). However, PixelSupervisorGUI is **not** in the “Initializing” state yet and therefore on receiving the “InitializingDone” it crashes! (I did not protect it with a Failed state.)