

adinstbpm - Feature #17771

Milestone # 17719 (New): Booster operational test of one crate alongside existing BPM system

Support for flash-turn and flash-orbit measurements

09/25/2017 01:31 PM - John Diamond

Status:	Work in progress	Start date:	09/25/2017
Priority:	Normal	Due date:	
Assignee:	John Diamond	% Done:	90%
Category:		Estimated time:	40.00 hours
Target version:		Spent time:	48.00 hours
Description			
Support for single-sample measurements that can be stored in circular buffer.			

History

#1 - 10/05/2017 10:09 AM - John Diamond

- % Done changed from 0 to 80

Refactored where DAQ data is stored -

- DAQ data buffers are no longer a part of Measurement
- A new class-hierarchy called IReading was created with descendants such as TBTReading and FlashReading
- The IReadings are basically data buffers. Measurements can produce multiple readings. For example, in a typical booster cycle the DAQ modules may digitize all 20000 turns but the user may only be interested in a single-turn ("flash-turn") reading of the DAQ modules. On another cycle the user may request a turn-by-turn and a flash-turn reading.
- The Measurement table now contains far-less data and may be expanded to thousands of entries to give the user a history of the DAQ module activity
- Implemented dump_flash_turn and dump_flash_turn_history CLI commands for viewing flash-turn readings
- Expanded the Control readout command to support specifying which readings to make and which turn/orbit to readout

Need to implement support for reading Flash-Orbit and Raw data.

#2 - 10/06/2017 01:02 PM - John Diamond

Raw reading support has been implemented.

#3 - 10/06/2017 01:02 PM - John Diamond

- % Done changed from 80 to 90