

Experiences Using DAQ Archiver at FLASH

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Background on DOOCS

- Front ends known as servers
- Middle layer also known as servers
- 4 tier heirarchical addressing
- A0.BPM/SEDAC/BPM12/POS.X
- Property - Smallest addressable unit of data.
- Dynamic typing
- Limited support for structured data
- No asynchronous access, no batching.



Correlation

- What correlation?
 - Shot (Macro pulse)
 - Bunch (Micro pulse)
- Event Number



Methods

- Centralized vs. Distributed
 - Control
 - Storage
- Push vs. Pull



DAQ

- Centralized control and storage
- 'fast' data is pushed
- 'slow' data is pulled
- 2 tier heirarchical addressing
- LLRF.ML/C1.ACC1.PROBE



- Non-standard file format
- DAQ Browser
 - List channels
 - Simple plotting (movie)
- MATLAB Extension
 - Limited to query by time (not event #)
 - Can only request contiguous blocks (not every Nth)



Correlated

- BPM
- Toroid
- BLM
- RF Power (F,R,T)
- Bunch energy

Uncorrelated

- 'Slow' data
- Settings
- Calculated values
- LLRF Controller Internals



Impressions

- Makes life much easier for experimenters
- Interesting possibilities for automation
- But...
- Needs testing
- More complete tools
- Advertising
- Bulk exporter



End

