Data Acquisition Working Group

- **Goals:**
  - Encourage community involvement in FRIB Data Acquisition development and evolution
  - Enable developers to provide effective and reliable experiment setup and operation
- **Status:**
  - **NSCL DAQ - Ron Fox (NSCL/FRIB)**
    - Scalable event building; graphical DAQ setup and control; time synchronization
  - **GRETINA/DFMA/external detectors - John Anderson (ANL)**
    - Versatile, coincident triggering and physics level timing with auxiliary detectors.
  - **GRETA - Mario Cromaz (LBNL)**
    - Challenges in decomposition and tracking - computing and network requirements
  - **Vendor Community research and development**
    - **W. Skulski**: SBIR Phase II - 40 channel fADC board with versatile digital triggering; complete DAQ system on board; extensible; embedded Linux provides versatile I/O options and detailed monitoring.
    - **C. Cox/W. Hennig**: SBIR Phase I - Small, 4 channel, network connected fADC, with 0.2 to 0.6 ns White Rabbit time synchronization. PTP with 11 ns.
    - **A. Ruben**: Mesytec DAQ system – 16 channel digital pulse processor to replace analog systems. Software system for configuration.
- **Needs - Questions for the community** (to be asked in discussions with working groups)
  - *Use cases for computing and network resources at FRIB*
  - *Planned and desired use of time stamps and triggers at FRIB.*
- **Presentations available at:**
  - https://www.phy.ornl.gov/fribdaq

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