EUDAQ Monitoring

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- EUDAQ was created for beam telescopes – provides no facility for processing or monitoring calorimeter data.

- Needs to be generic and flexible enough to serve different detector set-ups and technologies.
    - To make it useful for calorimetry, the online monitor needs to be changed so that it displays information in plots and histograms that make sense for calorimeters.
    - CALICE (Si, Sci), EUTELESCOPE, TPC, etc.

- This needs to be done without losing existing beam telescope functionality, or breaking compatibility for existing users.

Current Progress and Plans

- EUDAQ version 1.5-dev installed from Github and working on 'dummy' producers.

- Using dummy calorimeter data (provided by Adrian Irles) to assess current online monitoring.

- Understanding and learning code structure.

    - Starting from small steps to tackle learning curve:

        - Help develop AHCAL monitoring

        - Make it work with at least one other calorimeter DAQ system.

    - Incorporate existing work from SDHCAL monitoring system.

- Deciding on an approach to develop EUDAQ monitoring.

- Developing with EUDAQ 2.0 in mind, incorporating features from:

    - SDHCAL independent monitoring framework

    - AHCAL raw quasi-online monitoring

    - TPC experiences (?)

EUDAQ 2.0

EUDAQ 2.0 Software Layout.
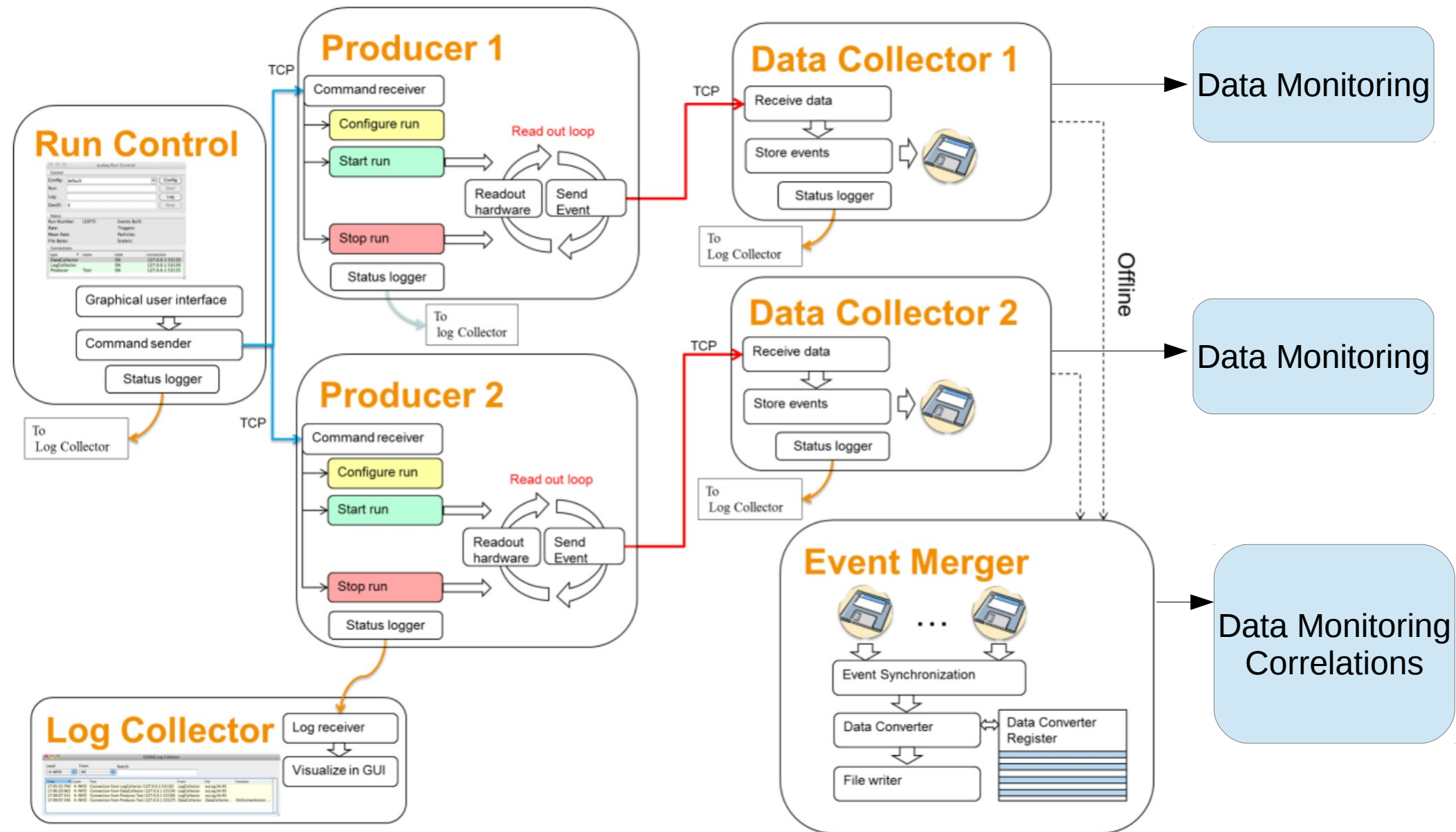
Open Questions

- Input needed:
  - Which test beams?
  - What input data formats? LCIO?
    - Important to develop correct producers.
  - Plots and histograms of interest?
  - Other data that needs online monitoring?