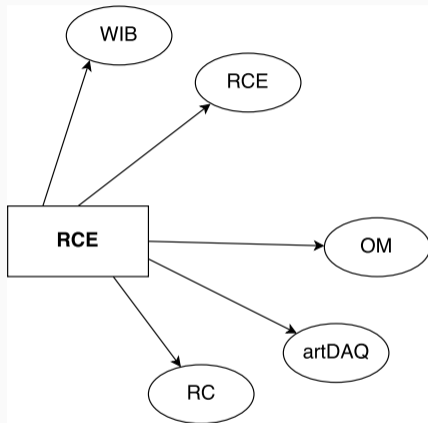
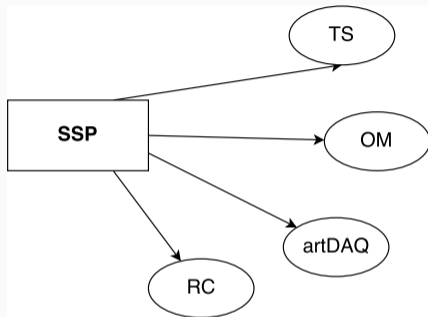


- Prompted by Kurt and some others. Idea is to define what we need to provide for the cold box testing more concretely.
- This can be iterated upon, but we should all agree and then share with the other groups to see that we satisfy their requirements
- **IN PROGRESS - bit of a brain dump**
- General Requirements
  - Acquire data from FE electronics
  - Store data on DAQ buffer (for delivery to EOS)
  - Provide online data monitoring
  - Provide data for calibration of detector/electronics
  - Take data @ 1-10 Hz trigger rate (more is probably not necessary)

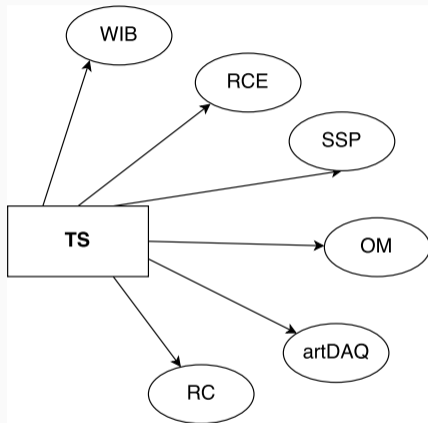
- RCEs (/FELIX not necessary for cold box)
  - Take data - Uncompressed, triggered
  - Requirements
    - Send WIB data (relatively) unmodified
    - Test with Real WIB data (triggered)
    - Complete overlay class for uncompressed data



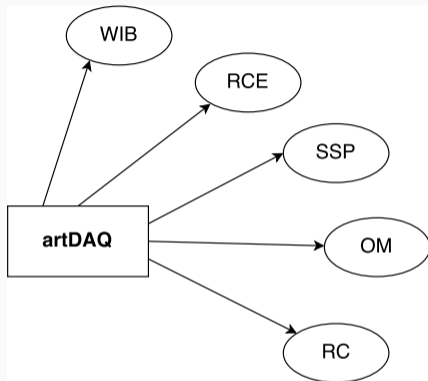
- SSP
  - Take waveform data, take header-only data, ext-trigger
  - Requirements:
    - Send data of each type to BoardReader
    - Test of triggers from timing system and BR matching
    - Complete overlay class for each data type



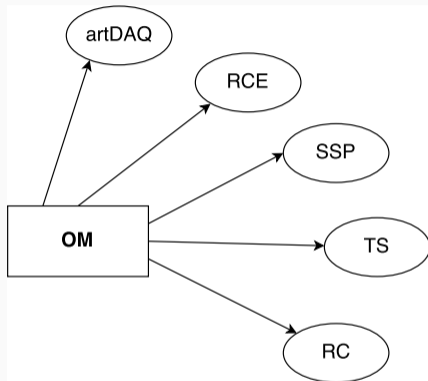
- Timing
  - Provide synchronisation and timing to endpoints, timing info data
  - Requirements:
    - Take timing data
    - Provide clock, time-stamp, trigger to WIB, RCE, SSP , artDAQ
    - Provide calibration signals to endpoints
    - Synchronised readout between mutiple endpoints
    - Provide pseudo-trigger
    - Provide trigger timestamp to artDAQ
    - Overlay class for timing data



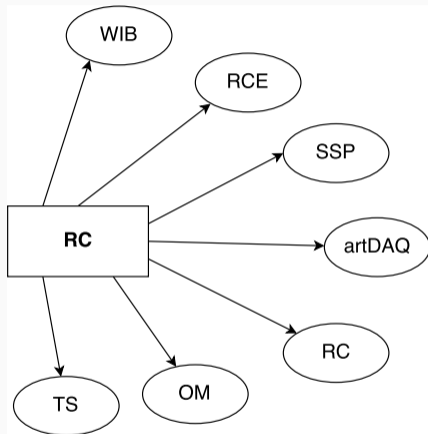
- artDAQ / dataflow
  - Take data from hardware, store triggered data, send to OM
  - Requirements:
    - BoardReaders for all
    - Event building based on trigger timestamps
    - Complete monitoring metrics
    - Stable, clear error reporting/tracking
    - Data rates understood
    - Stable interaction with Online Monitoring



- Online Monitoring
  - Provide means to look at data/plots online (preferably externally accessible)
  - Requirements
    - Tested end-to-end (e.g., RCE to Monet)
    - Complete overlay list - need to create with detector experts
    - Monitoring plots for TPC, PDS, Timing, Trigger



- Run Control
  - Completely control data taking, provide alerts, operational monitoring to users
  - Requirements:
    - Run start/stop etc.
    - Run number generation (run DB)
    - Interaction with config DB
    - Create/save new configurations
    - Monitoring metrics - need a list
    - Stable, clear logging, monitoring
    - Good error reporting



- Infrastructure
  - Computing infrastructure to meet CB testing
  - Test of complete data taking
  - Storage
  - User home-spaces
  - Web-proxy
  - Stable software installation
  - Laying cables