

## Emittance OAC Specifications Discussion – Feb 27, 2003

1. SBD
  - a. Trigger: polling on what device?
  - b. Inputs:
    - i. SBD sigma
    - ii. State of machine
  - c. Algorithms
    - i. Mike's equations
    - ii. Tomography?
      1. need the raw data
      2. Leo – analytical, dedicated OAC?
      3. Andreas – CERN, dedicated machine
  - d. Outputs
    - i. dp/p
    - ii. Longitudinal emittance
2. Flying Wires
  - a. Trigger: \$CF
  - b. Inputs
    - i. SBD recalculated dp/p
    - ii. FW sigmas at E11
    - iii. State of machine
  - c. Algorithm
  - d. Outputs
    - i. Transverse emittances
3. Sync light
  - a. Trigger:
    - i. polling on T:SLHRTB, which changes 15-16 counts each time it cycles through p and pbar. This takes about 1 minute.
  - b. Inputs
    - i. SBD recalculated dp/p
    - ii. sync lite sigmas
    - iii. state of machine
  - c. Outputs
    - i. Transverse emittances
4. General considerations
  - a. Maintaining the algorithms and parameters and same as SDA
  - b. Runs during studies as well as stores
  - c. Triggers
    - i. Interrupts – events, state variables ( Multicast )
    - ii. Polling on ACNET variables
5. Action items
  - a. Paul – how to extract algorithms from OSDA java classes so OSDA and OACs use same algorithms and lattice constants. Decide if He does it or Dennis does
  - b. Stephen

- i. Frshness number for SBD
  - ii. Possibility of state variables from Labview frontends
- c. Jean – talk to Dennis about what he needs, his time scale , etc.