Online Integration
1-Nov-99 Milestone

Checklist

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Send updates to

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Sections

- *Documentation*
  - Create expert guides
- *Startup*
  - Applications proceed to initialized state
- *User interface*
  - TAKER
  - EXAMINE
- *Configuration*
  - Sample configuration selected
- *Begin Run*
  - Data taking initiated
- *Event data flow*
  - Complete event path
- *End Run*
  - Data taking halted
- *SDAQ*
  - Repeat process for SDAQ

Startup

- ***Checklist:***
  - ❑ **L3**
  - ❑ **COOR**
    - ***COOR connects to L3***
  - ❑ **COMICS**
    - ***COMICS connects to COOR***
  - ❑ **DSM**
    - ***DSM connects to COOR***
  - ❑ **C/R**
    - ***C/R connects to DSM***
  - ❑ **DL**
    - ***DL connects to DSM, C/R***
  - ❑ **DD**
    - ***DD connects to DSM, C/R***

User Interface

- *Checklist:*
  - ❑ TAKER connects to COOR
  - ❑ COOR assigns Client ID to this connection
  - ❑ EXAMINE connects to DD

Configuration

- ***Checklist:***
  - ❑ **Define test configuration:**
    - ***Single Calorimeter crate***
    - ***Free-run trigger***
    - ***Single mark and pass trigger***
    - ***Single stream***
    - ***Single instances of C/R, DL, DD***
  - ❑ **TAKER requests, views, and selects a specific configuration from COOR**
  - ❑ **COOR relays configuration request to COMICS**

Configuration (cont'd)

- COOR relays configuration request to L3
- COOR relays configuration request to DSM
- DSM relays configuration request to C/R
- DSM relays configuration request to DL
- DSM relays configuration request to DD
- DD reports configuration status to DSM
- DL reports configuration status to DSM
- C/R reports configuration status to DSM

Configuration (cont'd)

- DSM reports configuration status to COOR
- COMICS reports configuration status to COOR
- COOR reports configuration status to TAKER
- EXAMINE configuration
  - *Request configuration from DD*
  - *Select Trigger, Stream*

Begin Run

- ***Checklist:***
  - ❑ **TAKER sends Begin Run request to COOR**
  - ❑ **COOR sets run number**
  - ❑ **COOR sends Begin Run to DSM**
    - ***Status returned***
  - ❑ **DSM sends Begin Run to C/R**
    - ***Status returned***
  - ❑ **DSM sends Begin Run to DL**
    - ***Status returned***
  - ❑ **DSM sends Begin Run to DD**
    - ***Status returned***
  - ❑ **DD sends Begin Run to EXAMINE**
  - ❑ **COOR sends Begin Run to L3**
    - ***Status returned***
  - ❑ **COOR sends Begin Run reply to TAKER**

Event Data Flow

- ***Checklist:***
  - ❑ **Calorimeter crate in free-run mode**
  - ❑ **L3 processes event**
    - ***Receives***
    - ***Puts in EVPACK format***
    - ***Puts Run, Event, Trigger, Stream numbers in ITC header (fake, where needed)***
    - ***Sends via ITC to C/R***
  - ❑ **C/R processes event**
    - ***Receives***
    - ***Routes to DL, DD based on Stream number***
  - ❑ **DL processes event**
    - ***Receives***
    - ***Writes to file***
    - ***Closes file at size limit***

Event Data Flow (cont'd)

- **DD processes event**
  - ***Receives***
  - ***Routes to EXAMINE based on Trigger and Stream number***
- **EXAMINE processes event**
  - ***Receives***
  - ***Processes***
  - ***Displays***

End Run

- ***Checklist:***
  - ❑ **TAKER sends End Run request to COOR**
  - ❑ **COOR sends End Run to L3**
    - ***Status returned***
  - ❑ **COOR sends End Run to DSM**
    - ***Status returned***
  - ❑ **DSM sends End Run to C/R**
    - ***Status returned***
  - ❑ **DSM sends End Run to DL**
    - ***Status returned***
  - ❑ **DSM sends End Run to DD**
    - ***Status returned***
  - ❑ **DD sends End Run to EXAMINE**
  - ❑ **COOR sends End Run reply to TAKER**

Pause, Resume Run

- ***Checklist:***
  - ❑ **much the same as Begin/End**

SDAQ

- ***Startup:***
  - Front end processes
  - Data Merge
- ***Configuration***
  - TAKER selects SDAQ configuration
  - COOR relays configuration request
- ***Begin Run***
  - TAKER requests Begin Run
  - COOR relays Begin Run to various elements
- ***Event Data Flow***
  - Front end transmits events to Data Merge
  - Data Merge transmits events to C/R

SDAQ (cont'd)

- ***End Run***
  - ❑ **TAKER sends End Run request to COOR**
  - ❑ **COOR sends End Run to various elements**