

Significant Event System DØ Run II Online Controls Requirements Document

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- I. Experiment Requirements
 - A. Verify data quality
 - B. Prevent damage to the hardware systems
- II. Technical Requirements
 - A. Maintain a record of the experiments' state
 - B. Events
 - 1. Receive events from host and IOC processes
 - 2. Distribute filtered events to 100 clients
 - 3. Guarantee delivery of distributed events
 - 4. Handle 10,000 events simultaneously
 - 5. Classify events by multiple qualifiers
 - C. Provide a quick response path for “emergency” events
 - D. Filters
 - 1. Filter events by classification
 - 2. Store filters in files
 - E. Archiving
 - 1. Record all events to an archive file
 - 2. Timestamp archived events
 - 3. Browse the events archive file
 - F. Hardware database
 - 1. Retrieve information from the hardware database
 - 2. Distribute information from the hardware database
 - G. Insure that other applications are executing (heartbeats)
 - H. Execute on multiple platforms (osf1, sgi, nt)
 - I. Use the Client/Server package (d0me)