

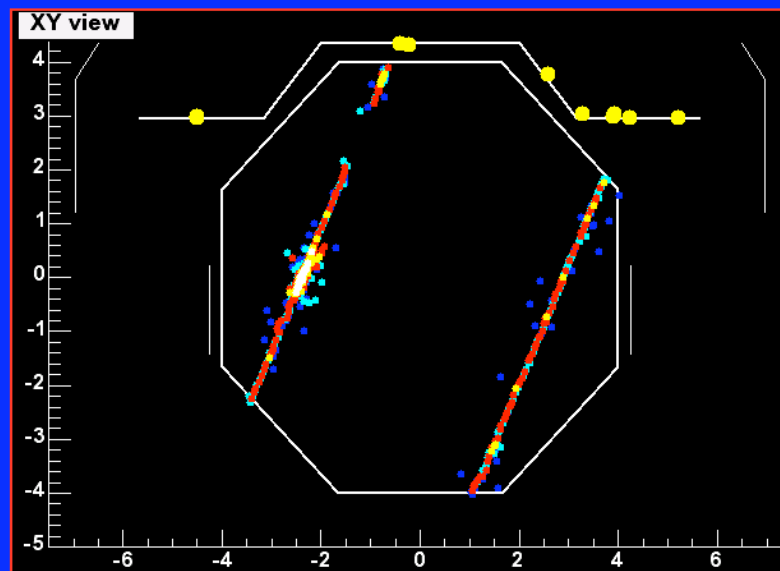
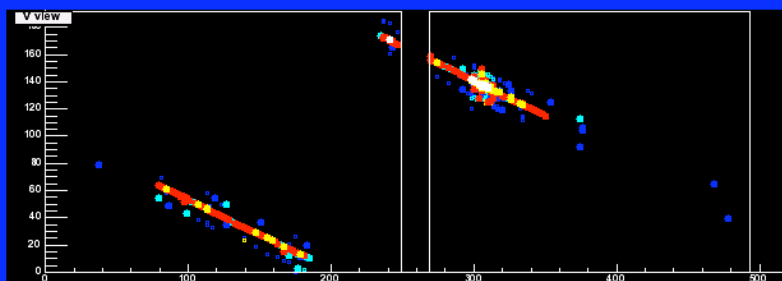
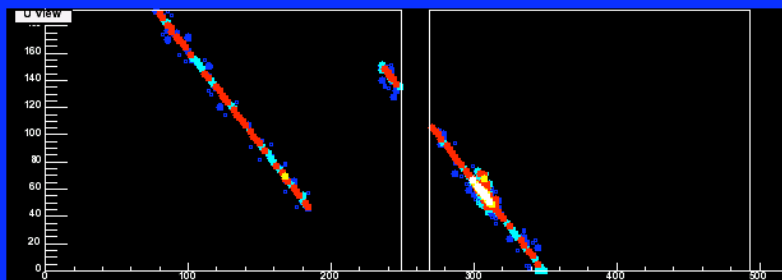


Online Event Display ?



- « Propose setting up a Real-Time **ONLINE** Event Display for local and remote use.
- « Fairly basic display of 3D (i.e. DeMuxed) hits

Time: 08:11:12 **Run:** 18012 **Snarl:** 36871 **ID:** Multiple Muon



- « Based on existing **ONLINE** and **OFFLINE** software



Motivation and Functionality



Motivation

- « For remote control room : see the events as they are recorded - verification that **all is well** (or not)
- « Outreach : seeing the events as they are recorded always impresses the public/potential new grad. students
- « Publicity : good for talks/lectures if one can show the detector in action

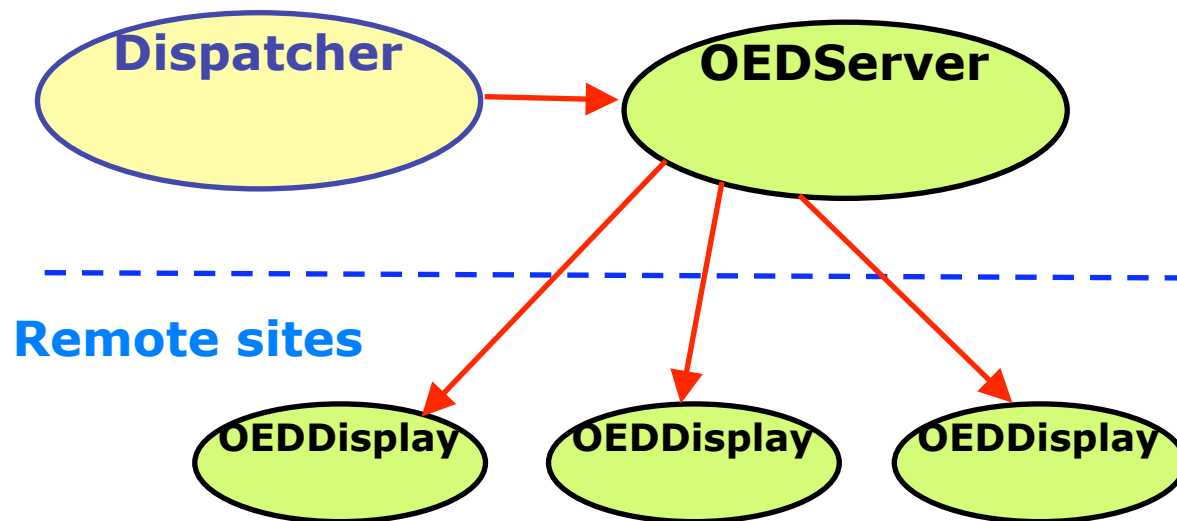
Functionality

- « Fairly basic display : {UZ, VZ and XY}
- « + some history : able to recall last cosmic, multiple-muon, neutrino candidate
- « Non-interactive : not meant to compete with the OFFLINE event display
- + **MUST BE FAST** to keep up with event rate



Possible Architecture

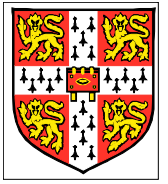
LOCAL (e.g. SOUDAN, FNAL)



- « **OEDServer runs locally – processes event and produces 3D hits**
- « **OEDDisplays connect via TCP/IP Sockets**
- « **OEDServer sends compacted DeMuxed UVZQ hit list – minimal network traffic $\sim$ 1kbyte/second**
 - no sending of windows across network !
- « **OEDDisplays would display hits using ROOT based GUI**
- « **Multiple displays can connect to single server**



Work Required



OEDServer

- « Set up a dispatcher client – probably running on its own PC
- « Re-use rcServer Socket Communications code
- « DeMuxing : use AltDeMux (100ms/cosmic)
 - easily sufficient to keep up with FARDET data
- « Produce 3D hits – code already used in AltDeMux

OEDDisplay

- « Re-use rcGui comms and basic environment
- « Implement basic display
 - code already in hand

Require little new code !

If Desired, could be put together fairly rapidly