d0ve in the Control Room

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02/03/2003  Shifter Tutorial/D0 Event Display
Package Dependencies

d0ve

framework

d0ve_framework

d0ve_caldis

d0ve_cft

d0ve_smt

d0ve_muon

d0ve_reco

Experimental

d0veco

p13.02.00

02/03/2003
Shifter Tutorial/D0 Event Display
What are you watching?

- **Muon System**
  - PDT, MDT, Scintillator Hits and Segments
- **Calorimeter**
  - EM and HAD Energy($E_t$)
- **CFT, SMT and Tracks**
  - Axial fibers (in X-Y and 3D) for CFT
  - Barrel & Disk Hits for SMT
  - Global plus Elastic tracks
- **Trigger Names**
  - Dump L3Chunk by L3TriggerSelector
3D Views

Scinti Hits

PDT Hits

Cal Had Cells

Fragments of CFT Axial fibers

Cal EM Cells
Calorimeter Lego Plot

Run 170373 Event 41486897 Sun Jan 12 04:53:43 2003

Triggers:
2EM_HI
2EM_HI_SH
EM15_2JT15
EM15_2JT25
EM HI 2EM5_SH
EM HI SH
11631_Ele
11761_Tmp2000
12081_Ele
12181_Ele
12281_Ele
12381_Ele
12681_Ele
12781_Tmp2000
13011_Tmp3000
13211_Tmp3200
13221_Ele
13232_Ele
13511 Jet
13811 Jet

Bins: 406
Mean: 0.396
Rms: 0.912
Min: 0.00533
Max: 11

mE_t 11.1
phi_t: 342 deg

Shifter Tutorial/D0 Event Display
2D Views

Muon segment in MDT A, B and C layer (X-Y only)

CFT

SMT

Muon segment in PDT A, B and C layer
D0ve_smt_detail
by S.Dean & G.Hesketh
Start/Stop Procedures on d0o132

- At /home/d0evd/p1302/, % d0setwa
- % cd d0ve_alldis/bin
- % d0ve_x –daq
  OR
- % d0ve_x –daq_lego for Calorimeter LegoPlot.

- To pause: type “space” key.
- To resume: type “Enter” key.
- To stop: type “Q” key on the 3D Window.
Menus and Keystroke Commands

- **Menus**
  - **File**
    - [Open reco file…] nice for offline events scanning.
    - PS print
    - Exit
  - **EventLoop**
    - controls events processing
  - **Display**
    - controls drawing parameters
  - **DZERO/ CAL-MUON-CFT-SMT**
    - controls above subsystems’ geometry/data
  - **Help**

- **Keystroke Commands**
  - PgUp(m), PgDn(s) : zoom in, out
  - I , o : move in, out( Perspective )
  - ,(<) and .(>) : rotate left and right respectively(10 degrees Step)
  - X , y , z : select axis to use for rotation by < , > keys
  - Arrows : move left, right, Up, down
  - Home(r) : reset to default viewing
  - U : refresh view
  - 1 , 2 , 3 and 4 : X-Y, Z-Y, Z-X and 3D views respectively( the 3D Window only )
  - 0 : (zero), toggle single/quad view

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Near Future Plans

- Adapt to multiple screens
- Provide magnified 2D views for live-event display
- Finish/Add FPD display

Suggestions

Send an e-mail to T.Burnett(tburnett@u.washington.edu) or me (oshima@fnal.gov). Thank you.
Related Documents and Link

- **D0ve Users Guide**
  - [http://www-d0.fnal.gov/computing/graphics/d0veall/d0vealldoc.html](http://www-d0.fnal.gov/computing/graphics/d0veall/d0vealldoc.html)

- **D0ve Developers Guide**
  - [http://www-d0.fnal.gov/d0dist/dist/packages/d0ve/devel/doc/](http://www-d0.fnal.gov/d0dist/dist/packages/d0ve/devel/doc/)

- **D0Live**
  - [http://www-d0online.fnal.gov/www/shift/event_pix.html](http://www-d0online.fnal.gov/www/shift/event_pix.html)
Who else is watching?

Live collisions from CDF and D0

The event displays in the pop-up window show you real particle collisions LIVE as they happen at Fermilab's CDF and D0 detectors. You may click the images for a larger view. Images refresh every 15 seconds. (When you revisit this page, you'll get new images after 15 seconds.) If you find an interesting event, please do not claim the Nobel Prize before we do. Thanks!

collisions from CDF

collisions from D0

Note: When no collisions are occurring, CDF and D0 will show events from their "Greatest Hits" collection.