

# *D0 Major Database Applications*

## 1) Calibration db applications:

SMT, CFT/CPS/FPS, CAL, MUON

=> work both with online and offline databases

=> detector calibrations write data into online database

=> after that calibration data are transferred into offline database

Problems seen: none

Size projection: expect to grow with the same pace as last year

## 2) EPICS hardware database (HDB) applications:

=> work with online database

=> keep track of the D0 control system EPICS devices, allow building IOC databases, editing templates, browsing and editing devices, set of command line scripts

Problems seen: none

Size projections: stay the same

### 3) RUNS database applications:

=> work with both online and offline databases

=> runGrabber (daemon) reads information about present run from COOR and writes it to the online database

=> runPusher (cron job) transforms data about completed run from online to offline database

Problems seen: none

Size projections: expect to grow with the same pace as last year

### 4) Solenoid Hall probes application:

=> work with online database

=> solGrabber.py reads information from hall probes and write to the database, runs on Windows platform

Problems seen: none

DB size projection: the same pace as last year

5) lumGrabber application:

=> work with offline database

=> read LBN files from luminosity system and writes to the database

Problems: when many LBN files are accumulated in the input queue and lumGrabber cache doesn't have their numbers, it may overflow archive redo log files – sensitive to the wealth of the D0 luminosity system

DB size prediction: the same rate as last year

6) EPICS slow archiver with GUI:

=> work with online database

=> reads current detector information via EPICS channel access and writes it to the database

Problems: large partitioned table, access is slow sometime, have to think how to speed it up

DB size prediction: will increase as in 2007, in 2008 we had more variables, went back to 2007 number

# Conclusion

- ❖ D0 online database applications are running well, no major complains
- ❖ No new developments are foreseen in the near future
- ❖ To help users with db applications we use open software Aqua Datastudio which we installed on our online Linux cluster. And it's ok.  
But it would be great if we could use web based interface similar to Oracle Grid Control. Is it not possible to give read access only to selective database users?