

IF Beam Data Update

NuComp 19Oct2011

Last Time:

- Rolled out the first incarnation of a general NuMI Beam Data service
 - Logging both physics and beam performance parameters
 - Provides multiple query/retrieval methods
- Go to:
 - <http://dbweb0.fnal.gov/ifbeam>

Testing, Stability, Improvements

- System has been running since last time
 - Can query and compare it to the spill information from the MINOS system
- FIXED an issue with time window queries
 - Time windows > 1day were taking a LONG time to complete (4+ hours)
 - It is now possible to do queries on weeks worth of data and have them return quickly (minute time scale)
 - Improved the performance of “common” queries (spill time and single device over a time range)
 - General performance and database optimization (“vacuumed” the database etc...)

Improvements

- Major change to the way data can be retrieved
- Service can now return a JSON data source compatible with Google Charts
 - Allows users to use Google Charts!
 - Allows users to define their own custom views of trend data without needing help from the DB group
 - Greatly simplifies monitoring
- For an example see (last hour spill data records):
 - <http://dbweb4.fnal.gov:8080/ifbeam/app/Dash/index>

To Do:

- Still need to perform a formal validation of the system (fulfills requirements, matches MINOS data, etc...)
- Provide more examples of user applications for monitoring and data retrieval
- Provide examples of integration with standard analysis jobs
- Try to accumulate feedback from users