

Implementing a Modular **Framework in a Conditions Database Explorer for ATLAS**

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DB Data from ATLAS online and offline

• Offline ATHENA DB objects defined from transient C++ • The LCG/COOL interface is used to store simple types or POOL oid's • POOL/CASTOR batch operations **not** for browser. **Online:**

Object store - mixed technologies Interactive

Browsing ?

• Examples of Complex object stores: •Defined as ATHENA classes – stored in LCG/POOL - conversion services – OID's stored in COOL ORACLE with "file/path" names. •Online monitoring histograms – shared as online objects – saved as root histograms in huge Castor files.

• DB Objects from **Configuration Database** (OKS) • DB Objects from online Information System (ONASIC2) Extended Types • DB Objects from Monitoring: stored as root histograms in Castor. Grib Array ROOT OKS • **Detector Calibrations** accessed also outside ATHENA framework. . . . TIDBTable **Object Schema Problem and TIDB2** CORAL C++The Temporal Instrumental Database (TIDB2) ROOT • includes COOL (CORAL) features: σD Cint • Abstract interfaces to different RDBMS TIDB2 • DB tables as hierarchical folders 5 • Replacing SQL by a transient table for storing and retrieving CORE Fortran • Managing of validity intervals, versions and tags column . . . Schema • Extra features: DBMS • Knows about extended object types in DB entries. Automatic Time interval + Tag Streamer • Automatically associates simple table columns to object parameters • Manages the schema evolution of extended objects >> x=a old Channel ID's COOL plugin; Stream API; Root Cint binding with table <-> TTree

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Ktidbexplorer

http://sim.fc.ul.pt/sim_en/TIDB2



Ktidbexplorer



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Extending: Monitoring Data Archive browser

The ONline Objects Extended Database BrowsEr (NODE) the visualization tool for the MDA.

Extending KTIDBExplorer, for NODE's Graphical User Interface. The visualization plugin for ROOT histograms was developed. The interface with MDA is achieved through a set of TIDB plugins, now in development stage.

A Design study is under way to evaluate the software engineering choices for implementing a Comments facility in NODE, to allow human (time-based) tagging of histograms.



NODE