



Contribution ID: 500

Type: oral presentation

Housing Metadata for the Common Physicist Using a Relational Database

Wednesday, 29 September 2004 16:30 (20 minutes)

SAM was developed as a data handling system for Run II at Fermilab. SAM is a collection of services, each described by metadata. The metadata are modeled on a relational database, and implemented in ORACLE. SAM, originally deployed in production for the D0 Run II experiment, has now been also deployed at CDF and is being commissioned at MINOS. This illustrates that the metadata decomposition of its services has a broader applicability than just one experiment. A joint working group on metadata with representatives from ATLAS, BaBar, CDF, CMS, D0, and LHCb in cooperation with EGEE has examined this metadata decomposition in the light of general HEP user requirements.

Greater understanding of the required services of a performant data handling system has emerged from Run II experience. This experience is being merged with the understanding being developed in the course of LHC experience with data challenges and user case discussions. We describe the SAM schema and the commonalities of function and service support between this schema and proposals for the LHC experiments. We describe the support structure required for SAM schema updates, the use of development, integration, and production instances. We are also looking at the LHC proposals for the evolution of schema using keyword-value pairs that are then transformed into a normalized, performant database schema.

Primary authors: BARANOVSKI, A. (Fermilab); KREYMER, A. (FERMI NATIONAL ACCELERATOR LABORATORY); LYON, A. (FERMI NATIONAL ACCELERATOR LABORATORY); SILL, A. (Texas Tech University); Dr CIOFFI, C. (Oxford University); NICHOLSON, C. (UNIVERSITY OF GLASGOW); RATNIKOV, F. (Rutgers University); GARZOGLIO, G. (FERMI NATIONAL ACCELERATOR LABORATORY); MCCANCE, G. (CERN); TEREKHOV, I. (Fermilab); FULACHIER, J. (LPSC, Grenoble); TRUMBO, J. (FERMILAB); NIENARTOWICZ, K. (CERN); LOEBEL CARPENTER, L. (Fermilab); LUEKING, L. (FERMI NATIONAL ACCELERATOR LABORATORY); BURGON-LYON, M. (Glasgow University); LESLIE, M. (Oxford University); ZIMMLER, M. (Fermilab); VOKAC, P. (Fermilab); KUNSZT, P. (CERN); MILLAR, P. (UNIVERSITY OF GLASGOW); HERBER, R. (FERMI NATIONAL ACCELERATOR LABORATORY); ILLINGWORTH, R. (FERMI NATIONAL ACCELERATOR LABORATORY); KENNEDY, R. (FERMI NATIONAL ACCELERATOR LABORATORY); ROCHA, R. (CERN); ST.DENIS, R. (University of Glasgow); ALBRAND, S. (Grenoble); BELFORTE, S. (INFN/Trieste); HANLON, S. (Glasgow University); STONJEK, S. (Fermilab); VESELI, S. (Fermilab); WHITE, S. (Fermilab); BARRASS, T. (University of Bristol); DOYLE, T. (Glasgow University); KERZEL, U. (Karlsruhe University); BARTSCH, V. (Oxford University); MERRITT, W. (FERMI NATIONAL ACCELERATOR LABORATORY)

Session Classification: Distributed Computing Services

Track Classification: Track 4 - Distributed Computing Services