

Accelerator Daily Log Management Subsystems

At Los Alamos Neutron Science Center (LANSCE), all parameter logs are manually printed and archived by operators. As a result, searching parameter logs to find useful information is difficult and time consuming. To deal with this problem, we introduce a new Integrated Relational Model of Installed Systems (IRMIS), a collaborative effort between several EPICS sites, with an ongoing subsystems to store the parameter logs and data. We start with a real EPICS/IRMIS at LANSCE and present a web application based on IRMIS of Advanced Photon Source (APS) of Argonne National Laboratory. Particularly, we describe the whole system including the APS crawler, IRMIS modules, the front-end and back-end of applications, full-text search and mobile-friendly pages. We then present the ongoing daily log management subsystems which are built on it. We discuss the database schema for the daily logs and logs' meta-data, and how we populate them into database. We use and change the existing applications and display screens so that we can avoid impacting the current daily logs and save the development efforts. Finally, we conclude with the future work.

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