

DATA ARCHIVING AND RETRIEVAL FOR SPRING-8 ACCELERATOR COMPLEX

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SPRING-8, an 8GeV third generation light source, has been operated relying a database system for its data logging. Status of every equipment that can affect beam quality are stored in the database for monitoring and further analysis. The database has stored 40GB of data successfully since the beginning of the commissioning of the storage ring at March 1997. The number of data from equipment grows to over 12000. The database manages data for the storage ring, beamlines equipment and the injector synchrotron. In the SPRING-8 data management system, we adopted the design philosophy of the database for data logging to be extensive, be flexible, store every data of the equipment for either on-line and off-line analysis. And clients can access data from the database not necessarily from the equipment directly. Data access is performed either by calling C-language functions or through Web browsers. Design of the data archiving and retrieving method including access tools are considered to realize the extensive use of the database. In this paper, design philosophy of database, data access tools and operation experience are described.