A DIRECTORY SERVICE FOR THE CERN PS/SL JAVA PROGRAMMING INTERFACE

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The CERN PS and SL accelerator control groups developed a common application program interface (API) in Java (this conference). Part of this API is a directory service that provides information about the underlying hardware and software. With this information it is possible to write generic programs and beans that do general actions on lists of devices without hard coding of device names and access details. The information is acquired through object interfaces BitPatternDefinition, DeviceClass, DeviceData, DeviceList, DeviceProperty, and DeviceMessage. The interface definition is independent of any implementation but a reference implementation is provided using Java Database Connectivity (JDBC) against a set of tables in a relational database. Any existing data can be used for filling the tables and, if none are available, the information can be filled in by hand in forms. Data from very different systems can be brought together and presented in a uniform way to the user. The directory interface is designed to be easy to use and to work smoothly with the rest of the API. The JDBC implementation is in operation and is quit efficient.