

USING CDEV AS MIDDLEWARE IN VACUUM EQUIPMENT CONTROLS

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Recent experience when developing vacuum control applications at CERN made evident that a significant amount of work was induced by the variety of Application Programming Interfaces (API) in different parts of the huge accelerator vacuum control system. A natural solution to the problem is to provide an isolation layer of software that will effectively decouple applications from any dependencies on the specific interfaces by presenting its own unique API to application programmers. The CDEV package developed at TJNAF has been used as an implementation framework for this layer of software. The implementation follows a three tier architecture where vacuum equipment servers, based on the CDEV "generic server engine", act as intermediaries between applications and subsystem specific controls. The paper describes in detail this client-server architecture and presents experience with using CDEV in the CERN accelerator control environment.