

APPLICATION MANAGEMENT TOOLS

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The Controls Group at Thomas Jefferson National Accelerator Facility (Jefferson Lab), is responsible for slow controls for all Jefferson Lab facilities. The Experimental Physics and Industrial Control System (EPICS) is used as the basis of all control systems at the lab. The Controls Group developed and maintains over 150 control applications running on over 100 I/O controllers. With so many applications, it becomes increasingly difficult to maintain and upgrade older applications and still produce new applications. The difficulties became especially apparent this year as a major effort was undertaken to upgrade all control system applications to the newest version of EPICS (3.13) and Vxworks (5.3). For several years the Low Level Applications Team has been working on a framework within which to develop and maintain applications more efficiently. As the framework has matured and applications have been structured to fit the framework, a number of tools have been developed to help with software maintenance and upgrades. The use of these tools has increased the reliability of the control system and the productivity of the programmers. This paper will describe some of these tools and how they are used to enhance the maintainability and reliability of the control system.