## *Jlab Accelerator Division*

## *Replacement for cdev Generic Server*

Scientific/Technical Project Charter

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| **Project Name (and Number)** | Replacement for CDEV Generic Server |
| **Project Abstract** | Replace the existing cdevGenericServer framework with a set of libraries on which AHLA server applications will be built and to which the current set of CDEV servers will be converted. The new framework will provide the same functionality as an EPICS ioc. Process variables (pvs), created for the server, will be indistinguishable from those of a “regular” ioc by existing EPICS Channel Access clients (ALH, EDM, MYA, etc) |
| **Project Sponsor** | Accelerator Division |
| **Funding Sources** |  |
| **Project Management Team** | Michele Joyce |
| **Lead Organization** | AHLA |
| **Supporting Organizations** | Operations Group, Controls Group (?) |
| **Scientific/Technical** **Background** | CDEV (Common DEVice) was adopted years ago as a communications layer between high-level applications and EPICS. CDEV also provides the cdevGenericServer framework, used for development of stand-alone server processes, such as the lock servers. In addition, the CDEV Tcl interface is heavily used as the protocol for communication between scripts and the controls system. With the rise of soft iocs, the fact that CDEV is no longer actively maintained, and the necessity for converting these applications to linux—the decision has been made to design and develop a replacement framework. |
| **Project Scope** | Within the project scope:* Collection of the requirements for the new server application infrastructure.
* Investigation and research of existing utilities and frameworks that fulfill requirements. (i.e. soft ioc)
* If necessary, design and develop necessary libraries.
* Documentation and developer training on use of new framework

Outside the project scope:* Replacement for the existing CDEV tcl interface.
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| **Objectives** | A well-documented, well-maintained, standardized, application server framework |
| **Deliverables** | * Requirements for new general server application framework.
* Set of libraries and utilities upon which to build new server applications.
* Well documented API and clear guidance on using the new framework.
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| **Constraints** | Use of the EPICS Channel Access protocol  |
| **Assumptions** | Continued use of EPICS for the Control System |
| **Special JLab Commitments** |  |
| **Budget** | * Requirements collection: 0.05 FTE
* Research: 0.05 FTE
* Remaining budget will depend on what is found during the research stage.
	+ Document use of existing utility/framework: 0.1 FTE (min)
	+ Complete development of new utility/framework: 0.5 FTE (max)
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| **Schedule** | \*\*At current staffing levels:* January 2011—Decision will be made as to whether or not we will be using an existing framework, developing a new one, or some combination.
* May 2011—Infrastructure and documentation in place to begin development of replacement servers.
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| **Controls/Reporting** |  |