JSA Initiatives Fund Proposal Summary Sheet

| Proposal title: | Workshop on CLAS12 Software |
|---|---|

| | New proposal | _X_ Renewal | Total funds requested __$5,000.00__ | Leveraged support / Matching resources __X__ Yes _____ No |
|---|---|---|---|---|

If your proposal includes leveraged support or anticipates matching resources, identify source, amount, and secure the signature of an authorized representative of the source.

Source/Amt  University of Richmond - $1280          Authorized Signature:

Source/Amt  Christopher Newport University - $1280          Authorized Signature:

Source/Amt          Authorized Signature:

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Principal Investigator (PI)          Gerard P Gilfoyle

| | JLab employee | Associate Director signature | |
|---|---|---|---|
| X | JLab user | Name of university | University of Richmond |
| | Other | Name of institution | |

PI's Mailing Address: Department of Physics, University of Richmond, 28 Westhampton Way Richmond, VA 23173

PI's Telephone / E-Mail: 804-289-8255/gilfoyle@jlab.org

Co-PI's (with affiliation): David Heddle, Christopher Newport University

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Executive summary including the projected begin/end dates.
This is the 1st of a planned series of workshops dedicated to the 12-GeV upgrade of the CEBAF Large Acceptance Spectrometer (CLAS). The subject focuses on developing a modern, commercial-like Service Oriented Architecture (SOA) for CLAS12 software. This SOA will include services related to analysis, reconstruction, simulation, and display of CLAS12 data.  The scientific organizing committee consists of Dennis Weygand, Vardan Gyurjyan, Gerard Gilfoyle (co-chair), and David Heddle (co-chair).

Synopsis of scientific, educational, technical, and/or business merits, and alignment with and significance to Lab's current programs.
This workshop will gather to the University of Richmond contributors and potential contributors to  the development of CLAS12 software. The proposed service-oriented software architecture amounts to a technology transfer from industry and will help to equip those participating undergraduate and graduate students who will enter the commercial workforce when their education is complete. The workshop will finalize guidelines for writing and accessing services. The CLAS12 software group will use these guidelines to prepare detailed software requirements which will in turn be submitted to the collaboration for approval.

Proposed evaluation plan to measure success.  If this is a request for renewal of funds, assessment of prior year performance.
The organizing committee of the workshop will publish (on-line) the workshop proceedings. The success of the workshop will be measured by increased university commitment to participation in the CLAS12 software development and by commitments to specific, as-yet unassigned projects identified by the CLAS12 software group. In addition, a successful result of the workshop will be a consensus on service-oriented software guidelines that will form the basis for explicit and comprehensive documentation.

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Authorized signature for proposal from:

JLab employee          Lab Director signature          _____

JLab user          JLab Users Group Board Chair          _____

Other          Institutional authorization          _____

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| Office of SURA Chief of Strategic Services – Internal Use |
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| Proposal received:          Submitted for review:          Disposition: |

Attachment A   Technical Proposal – no more than 5 pages please.  Up to 5 additional pages of letters of support, or other
supporting materials may accompany proposal.
Attachment B   Budget Proposal

### Request for JSA Support of the workshop entitled
### "1st Workshop on CLAS12 Software"

We request JSA support for an international workshop entitled "**1st Workshop on CLAS12 Software**", which will be held at the University of Richmond May 25-26, 2010. The Workshop Organizing Committee consists of

Dennis Weygand (JLab), Vardan Gyurjyan (Jlab), Gerard Gilfoyle (Richmond, co-chair), David Heddle (Christopher Newport, co-chair). An administration committee consists of Pam Gaddis (CNU) and Linda Ceraul (JLab).

The workshop has been endorsed by the CLAS Collaboration. The University of Richmond and Christopher Newport University have expressed their support and each is expected to contribute $1280.

The workshop will focus on the deployment of a Service Oriented Architecture as a framework for CLAS12 software. Some of the specific topics that the workshop will address are:

• Security concerns:  what is the minimum-risk viable architecture?
• Functional decomposition: what are the core services?
• Language issues: can any language be used?
• Bandwidth concerns: how do we minimize data transport?
• Software development: tools for integrated development, unit testing and builds
• Automation: nightly builds
• Guidelines and standards: rules for creating services, examples of using services, hands-
    on tutorials
• Configuration Management and Revision Control: SVN, Scons, Ant

The workshop will run for two days and will be held at the University of Richmond.  The tentative dates are Tues-Wed May 25-26, 2010. We expect about 50 participants. Only plenary sessions are planned.  Abstracts will be solicited. We  hope that  anyone who wants to give a talk will be allowed to.  We will have online abstract submission and copies of all talks will be available on the Workshop website. We chose an off-site location so that the participants will focus more precisely on the discussions, but it is still close (about 75 miles) to JLab.

The program evaluation will consist of a final report describing (1) the current status of the CLAS12 software, (2) tasks to be completed before the start of CLAS12 commissioning, and (3) requirements for software developers. Item (3) is an essential statement for collaborators to begin working on software. The requirements will describe how to write programs that can be seamlessly incorporated into the existing CLAS12 framework described above to reduce the software life cycle and raise our productivity. Below is an proposed budget anticipating a $5000 award from JSA.

*Software Development for CLAS12*

*May 25–26, 2010*
*University of Richmond*

Software Development for CLAS12
May 25-26, 2010
University of Richmond

| | | Restricted | Unrestricted | Total Budget |
|---|---|---|---|---|
| **Revenue** | | | | |
| | Richmond contribution | 1280 | - | 1280 |
| | CNU contribution | 1280 | - | 1280 |
| | SURA/JSA Initiative Fund | - | 5000 | 5000 |
| | Total Revenue | 2560 | 5000 | 7560 |
| | | | | |
| **Expenditures** | | | | |
| | Continental breakfast & breaks | 1000 | | 1000 |
| | Materials and supplies | 200 | | 200 |
| | Reception | 1000 | | 1000 |
| | Travel and support (25x$200) | 5000 | | 5000 |
| | | | | |
| | Total Anticipated Expenditures | 7200 | | 7200 |
| | Add: Unanticipated contingency 5.00% | 360 | | 360 |
| | Total Expenditures | 7560 | | 7560 |
| **Net Revenue (Expenditures)** | | 0 | | 0 |