Information Technology for the 12 GeV Era – Review
Friday, May 20, 2011

Jefferson Lab will conduct a one day internal review of most aspects of Information Technology that impact preparations for and initial running of the 12 GeV science program. This review is intended to get a good understanding of progress towards 12 GeV, and discover where there are areas that might need increased effort in the coming year. This review is also intended to prepare the laboratory for a full external review a year from now.

Jefferson Lab's 12 GeV upgrade will increase the demands on computing in many ways, from the addition of a fourth hall and thus new staff, an increase in the size of the accelerator complex, to a major increase in the rate at which data will be acquired and analyzed.

By the time 12 GeV beam turns on for physics, it is the desire of the laboratory to have all computing systems and software ready, so that the time from beam on target to physics journal articles is as short as possible. This will require an appropriate allocation of resources (both people and procurements) in the next several years, and an appropriate level of testing and validation prior to operations.

Charge to the Panel

We request that the review panel address the following points for IT in the 12 GeV era:

- An assessment of the state of current software and systems developments

- An assessment of planning for bringing all software to a suitable level of maturity, including software testing for correctness and performance

- An assessment of planning for an evolution of computing, networking and storage capacity and performance to address the needs of detector simulation and data analysis

- An assessment of the IT infrastructure to meet requirements including support for other areas, e.g. accelerator, light source, theory, operations

- An assessment of the quality and effectiveness of the management of the major efforts to prepare

- As assessment of the resources, budget and staffing, to meet the needs of the program

As this will be a one day review, we recognize the difficulty of delving deeply into each relevant computing project. Below is a proposed schedule showing the topics to be covered during the morning's presentations. The committee is asked to address as many of the points above for each of the topics presented as possible given the short time allocated for presentations. The review panel may request additional discussions with any of the presenters immediately after lunch if needed.

IT in the 12 GeV Era – Review Agenda
CEBAF Center – F224-225

8:30	Welcome and Charge – Roy Whitney
8:40	Data Acquisition – Graham Heyes
9:00	Hall A Simulation & Analysis – Ole Hansen
9:10	Hall B Simulation & Analysis – Jerry Gilfoyle
9:35	Hall C Simulation & Analysis – Steve Wood
9:45	Hall D Simulation & Analysis – Mark Ito
10:10	Physics Summary – Graham Heyes
10:20	Break
10:35	Accelerator Controls – Matt Bickley
10:55	Accelerator Physics, FEL, future Light Source needs – Wes Moore
11:15	Scientific Computing and Lattice QCD – Sandy Philpott
11:35	Management Information Systems – Kari Heffner
11:45	Computer Networking & Infrastructure – Andy Kowalski
12:15	-- lunch --
4:00	Closeout

Review Panel:

- Chip Watson, Chair (Jefferson Lab, Deputy CIO)
- Cortney Carpenter (W&M, CIO)
- Graham Drinkwater (CSC, Director, Maximo Services, ATG)
- Brad Sawatzky (Jefferson Lab, Hall C IT)
- Richard Jones (UConn, GlueX)
- Karl Slifer (Univ New Hampshire, User Group BOD IT representative)