12 GeV Software and Computing Review Committee Charge

April 26, 2012

The committee is asked to review the state of software and computing developments for the 12 GeV program at Jefferson Lab, with particular emphasis upon

- Detector simulation, calibration, and event analysis
- Workflow tools for production analysis

The review will cover all 4 halls, including data acquisition, planning for computing resources, and management.

The committee is asked to address the following questions:

1) Software and Analysis

   a. What is the state of simulation, data acquisition, calibration and analysis software, including usability and readiness from a user's perspective? Are the software plans complete, and is the scope appropriate?

   b. Is there adequate progress in software maturity, and is there a defined set of goals leading towards full readiness ahead of production running?

   c. To what extent will software tools and components common across the halls and/or with the wider HE/NP communities be utilized? Are efforts towards commonality being made?

   d. Have milestones been identified, and an appropriate set of tests been incorporated into the milestones, to measure progress towards final production running?

   e. Have the collaborations identified effective and appropriate mechanisms to support utilization of the software by the entire collaboration ?

2) Management

   a. Are the current management structures and processes well-matched to the needs of the collaborations (including users)?

   b. Are there appropriate contingency and risk-management processes in place? Have risks been appropriately identified?

   c. Are there adequate plans for transitioning from a development phase into a deployment and operations phase?

   d. Have the required resources been correctly assessed. Are the assumptions of resource requirements well justified? Have the resources been identified? Is the proposed schedule for implementation reasonable?

3) Computing and Networking

   a. Are the requirements for computing and networking well stated and well justified?

   b. Are the computing and networking plans of the laboratory well matched to the requirements, are they cost effective, and are budgets appropriate for these plans?