## CLAS Offline Software CVS to SVN Transition

In the process of preparing for the 12 GeV upgrade, members of the CLAS offline software group have concluded that the current CVS repository is no longer sustainable. It lacks documentation, contains dozens of obsolete and orphaned packages, and has become increasingly difficult to maintain over the past 20 years. In addition, the build system is equally cluttered and difficult to use, especially for students and new users.

Thus, the CLAS offline software group have decided to revamp the software system for the beginning of the 12 GeV era at Jefferson Lab. Several changes have been made:

- The <u>main repository</u> is gradually being ported from the CVS repository management system to a new repository managed by its successor application, <u>Subversion (SVN)</u>. Packages are being moved one at a time, upon request, so as to filter out packages which no longer have a maintainer.
- There also exists a <u>user's area</u> within the new into which users can import their own analysis programs and utilities and access them from anywhere. In addition, user portions of the repository can be audited to remove obsolete entries.
- The GNU make build system of the CVS repository has been replaced by a new system based on SCons.
- The structure of the libraries themselves have been changed--individual detector libraries are combined in a single `libdetector', and all of the usual CLAS libraries are included in a `libclas'.

Any software transition is difficult, and we are attempting to provide as much documentation as possible to simplify the move to the new setup. See the links below for more detailed information:

- CLAS Subversion Repository: Introductions to SVN, the layout of the CLAS repository, and cheatsheets for translating CVS commands to SVN
- CLAS SVN User Area: A walk-through of the user's portion of the CLAS
  SVN repository, with guides for importing and managing your code

 CLAS SCons build system: An introduction to SCons, the new CLAS build system, and recipes for building the CLAS software with SCons on various platforms

In addition, here are some external links related to the above:

- The main branch of the new CLAS SVN repository
- The <u>homepage</u> of Subversion
- The <u>homepage</u> of SCons

In order to continue the process, the former CVS repository needs to be retired. I've set a time limit of 3 weeks to convert the current CVS repository to read-only. Of course this may create some hardship, but we can no longer keep two versions of the software. And of course the CLAS6 offline development team will help users through the transition period.

The date of the transition is set to September 1, 2009. If you experience difficulties, please contact me immediately: <a href="weygand@ilab.org">weygand@ilab.org</a>

**Dennis Weygand**