Maven Support for LCIO Standalone Java Package

Jeremy McCormick, SLAC

Why Maven?

- downloads dependencies automatically
- extensive library of existing plugins
- used by all other LCD Java projects
- easy and straightforward versioning and release system
- old ant script is no longer maintained
- test cases can be recognized and run trivially using maven-surefire-plugin
- can easily build executable "uber" jar with all dependencies

Compile-time Dependencies

- added to <dependencies> section of POM
- freehep
  - sio, physics, xdr, mcfio, stdhep
- infrastructure
  - junit, jdom
- other
  - Apache commons, GNU jel

Deps, contd.

- all jar dependencies have been deployed to freehep internet maven rep (thanks Tony)
- should probably make releases of deps once we're ready, in order to have a "baseline" set of non-snapshot dependencies

Java Interface Generation

- uses freehep-aid-plugin to generate .java interface files from .aid inputs

- currently requires patched freehep-aid-plugin version to run properly
  - checkout from freehep svn and build/install yourself for now

- waiting on reply from Mark D. (author of plugin) to fix this issue

Executable Jar File

- standalone executable jar created with maven-shade-plugin
  - put at ./target/lcio-[version]-SNAPSHOT-bin.jar
- similar to lcsim
- uses the lcio CL tool for the main()
- can be executed with "java –jar" but easier with script
- added ./bin/lcio_new to eventually replace the existing lcio script
  - no longer requires hardcoded dependency list

Test Cases

- currently don't have any

- ready to be added

- just need to decide where to put these in the lcio cvs project → ./test/java ?

JAS3

- added JAS3 target to install to ~/.JAS3
- do we want this? (LCIO plugin deprecated)

TODO

- integrate with existing cmake build system
  - have POM get version tag from cmake (?)
- remove existing ant scripts once migrated, etc.
- other?