SLIC FAQ

> **Deprecation**
>
> Some of the material in this FAQ has become dated.

This is an FAQ for the SLIC simulator package and related content. See also the org.lcsim Frequently Asked Questions

SLIC FAQ

General

- What is SLIC
- Who is the primary maintainer of SLIC
- Is there a forum for issues related to SLIC
- Is there a wiki about SLIC
- Is there a mailing list for announcements about SLIC
- Are there any papers or writeups about SLIC
- Where can I find analysis results that were based on SLIC
- Where can I report bugs in SLIC

Obtaining and Building

- How do I build SLIC

> Rest of this section is deprecated/unneeded.

- What operating systems and compilers are supported by SLIC
- Where can I download SLIC binaries
- How do I checkout SLIC from CVS
- Is there an online CVS for SLIC
- What are SLIC's external dependencies
- What tools will I need to build SLIC
- How do I build SLIC from scratch
- How do I build CLHEP
- How do I build Geant4
- How do I rebuild the Geant4 visualization libraries
- How do I build LCIO
- How do I build GDML
- How do I build LCPhys
- How do I build LCDD
- How do I build Xerces
- At what sites is SLIC installed
- How can I run SLIC at SLAC
- How can I run SLIC at FNAL
- How can I run SLIC at NICADD
- How do I run a SLIC Linux binary on SL5

Commands

- How do I run SLIC from the command line
- What command line options does SLIC support
- How can I get help on the command line interface
- How do I run in batch mode
- How do I run in interactive mode
- How do I run a file with Geant4 macro commands
- Where can I get example macro files
- How can I get help on the macro commands
- How do I find out what version of SLIC I am running
- How do I find out what version of Geant4 I am running
- How do I submit a batch job using LSF
- How do I set the number of events to run
- How do I turn off the event messages in SLIC
- How do I print some information about various Geant4 and SLIC data objects at runtime
- How do I print the table of defined materials

LCIO

- What is LCIO
- How do I set the output path for LCIO files
- How do I set the name of the LCIO file
- How do I automatically name an LCIO file
- How do I automatically delete an existing LCIO file

- How do I append to an existing LCIO file
- How do I cause slic to fail if it finds an existing LCIO file
- How do I set the CHBIT_LONG flag to store explicit hit positions
- How do I set the CHBIT_PDG flag to store each individual MCParticle contribution in a hit
- How do I set the run number
- How can I dump information about my LCIO file from the command line

Physics

- What is the default physics list
- What is LCPhys
- What other simulators use LCPhys
- How can I change the physics list
- What other Geant4 physics lists does SLIC support
- What should I do when I get an error message about missing Geant4 data files
- How do I set the minimum tracking distance using Geant4 commands
- How do I activate or deactivate certain Geant4 processes

Magnetic Field

- How do I create a simple solenoid using the compact description
- How do I create a solenoidal field map using the compact description
- How do I create a dipole using the compact description
- How do I change the magnetic field stepper used by Geant4
- How do I change the delta of one step for the field stepper
- How do I change the delta of intersection with the chord for the field stepper

Geometry

- What is GDML
- What is LCDD
- Where can I get some example LCDD files
- What is GeomConverter
- What is the compact description
- What is LCDetectors
- Where can I find full detector geometry files in the compact description
- How do I create full detector geometry files from the compact description
- How do I dump a GDML file of the current geometry using SLIC
- How can I make SLIC look for XML schemas in a local directory
- How do I install the XML schemas to a local directory
- How do I check the LCDD geometry for errors

Visualization

- How do I visualize with OpenGL
- How do I visualize with DAWN
- How do I visualize with OpenInventor
- How do I visualize with VRML
- How do I visualize with HepRep and WIRED
- How do I visualize with ROOT

Event Generation

- What event generators are available from within SLIC
- How do I use a StdHep file as my event source
- How do I use an LCIO file as my event source
- How do I use the General Particle Source (GPS) as my event source
- How do I create an event with two or more different particles using the GPS
- How do I create events sampled from multiple sources using the GPS
- How do I use the particle gun as my event source
- How can I print information about the current event generator
- How do I skip events in a StdHep file
- How do I reset an event source to the first record

Random Engine

- How do I set the random seed
- How do I dump the state of the CLHEP random engine
- How can I set the directory for the random dumps
- How do I load back the state of the random engine that I dumped previously

Grid

- How do I setup the public and private keys from a Grid certificate
- How do I use the OSG Grid
- How do I use the LCG grid