

# How do I run SLIC from the command line

## SimDist

The SimDist build system attempts to minimize SLIC's runtime dependencies. On Linux, you should get a static binary at *SimDist/packages/slic/SLIC\_VERSION/bin/G4SYSTEM/slic* that can be run without a wrapper script. Alternately, the SimDist wrapper script at *SimDist/scripts/slic.sh* will setup the Xerces C++ runtime dependency in case you built it as a shared libraries.

## SLIC Directory

If you built SLIC from scratch yourself, the binary will be placed at *\$SLIC\_BASE/bin/\$G4SYSTEM/slic* (or *slic.exe* on Windows). If the executable was built statically, then the binary can be run directly, e.g. on Linux.

```
/path/to/slic/bin/Linux-g++/slic [args]
```

## LD\_LIBRARY\_PATH

If Xerces was compiled with shared libraries, the *LD\_LIBRARY\_PATH* variable needs to contain the directory with the shared library. This applies to Linux only! The corresponding variable for OSX is *DYLIB\_LIBRARY\_PATH*, and it is *PATH* on Windows. So change the following command accordingly.

```
export LD_LIBRARY_PATH=$XERCESCROOT/lib:$LD_LIBRARY_PATH
```

## Geant4 Data Files

Several of the Geant4 physics lists require that the environment contain variables that point to the Geant4 data files containing cross-sections and similar information.

Firstly, [download the Geant4 data files](#) and untar them into a directory. We call this directory G4DATA. Then set the following variables before running SLIC.

```
export G4LEVELGAMMADATA=$G4DATA/PhotonEvaporation
export G4RADIOACTIVEDATA=$G4DATA/RadiativeDecay
export NeutronHPCrossSections=$G4DATA/G4NDL3.7
export G4LEDATA=$G4DATA/G4EMLOW3.0
export G4ELASTICDATA=$G4DATA/G4ELASTIC1.1
```

## Additional Dependencies

Depending on your site configuration, especially of Geant4, there may be other runtime dependencies that need to be added to the *LD\_LIBRARY\_PATH* (or corresponding variable).

The following command on Linux will show the shared libraries required by your copy of SLIC at runtime.

```
ldd ./slic
```

This assumes that *./slic* is the executable created either from SimDist or by hand using your own build procedure.