# **Simulator Distribution**

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## Simulator Distribution

#### Overview

The Geant4-based simulator SLIC requires the following 8 software packages.

```
Geant4
CLHEP
GDML
LCDD
LCIO
LCPhys
Xerces C++
SLIC
```

The SimDist CVS project provides a build system for these programs based on GNU Make and Autoconf. SLIC can be built from scratch using the prototypical "configure" and "make" commands, and it includes a run script for setting up the runtime dependencies and launching the program.

### **Known Working Configurations**

This is a list of known combinations of operating system and compiler (gcc).

Red Hat Enterprise Linux 3, Scientific Linux 3: gcc 3.2, 3.4.3, 4.0, 4.1.1

Mac OSX: gcc 3.4 and 4.0

Windows (Cygwin only): gcc 3.3.3

### **Available Binaries**

Binaries built with this system can be obtained from the distribution download area.

The distributions are named according to the following scheme.

```
slic-[version]-[platform]-[compiler]-[type].tar.gz
```

For instance, this file is a binary distribution of slic version 1.13.3 for Linux, compiled with g++.

```
slic-1_13_3-Linux-g++-bin.tar.gz
```

The type can be "bin" or "dist". The "bin" downloads are binary distributions containing only the necessary runtime files for running the simulator, while the "dist" files include the entire set of libraries and sources that were used to build the binary.

### **Binary Installation**

The process for installing a binary release for the aforementioned configuration is similar to this.

1. Assuming that the tarball is called slic.tar.gz, download the tarball using (for instance) the wget program.

```
wget http://www.lcsim.org/dist/slic/slic.tar.gz
```

2. Decompress it.

```
tar -zxvf slic.tar.gz
```

3. Go into the SimDist directory and run the simulator.

```
cd SimDist
./scripts/slic.sh
```

Downloading and installing from a dist file is the easiest way to get SLIC up and running.

# **Building from Source**

The Simulator Distribution can also be obtained and built from scratch. You may need to do this if the dist binaries do not work or if you need to make various customizations, such as changing the default Geant4 version.

1. First, checkout the project from the SLAC cvs.

```
cvs -d :pserver:anonymous@cvs.freehep.org:/cvs/lcd co SimDist
```

2. Go into the directory.

cd SimDist

3. Configure the project.

./configure

4. Now, build the SimDist.

make

The binaries can be executed just as before.

## Reporting Problems

Bugs should be reported to jeremym@slac.stanford.edu or SimDist's Jira bug tracker.