

Building and testing lcgeo with ILCSoft v01-19-04 and SiD_o3_v02

Download [lcgeo](#) from GitHub (delete any older installation of lcgeo, if the case)

`git clone https://github.com/ILCSoft/lcgeo.git`

Configure ILCSoft v01-19-04 and compile lcgeo

```
cd lcgeo
```

```
mkdir build
```

```
cd build
```

```
source /cvmfs/ilc.desy.de/sw/x86_64_gcc49_sl6/v01-19-04/init_ilcsoft.sh
```

```
cmake -DCMAKE_CXX_COMPILER=`which g++` -DCMAKE_C_COMPILER=`which gcc` -C $ILCSOFT/ILCSoft.cmake ..
```

```
make -w -j4 install
```

```
Setup lcgeo
```

```
cd ..
```

```
source bin/thislcgeo.sh
```

Now, get these out of the way so that the v01-19-04 ddsim is used

```
rm -rf bin/ddsim lib/python/DDSim
```

which ddsim should display

```
/cvmfs/ilc.desy.de/sw/x86_64_gcc49_sl6/v01-19-04/lcgeo/v00-13-04/bin/ddsim
```

Create single particle slcio file

```
cd example/
```

```
export PYTHONPATH=${LCIO}/src/python:${ROOTSYS}/lib:$PYTHONPATH
```

```
python lcio_particle_gun.py
```

Run simulation with the [SiD_o3_v02](#) model

```
ddsim --compactFile ../SiD/compact/SiD_o3_v02/SiD_o3_v02.xml --inputFiles mcparticles.slcio -N 10 --outputFile simple_lcio.slcio
```

or

```
ddsim --compactFile lcgeo/SiD/compact/SiD_o2_v03/SiD_o2_v03.xml --runType batch --enableGun --gun.distribution uniform --gun.particle e- --gun.energy 15*GeV --gun.thetaMax="1*mrad" --gun.thetaMin="40*mrad" --numberOfEvents 50 --outputFile myElectrons.slcio
```

Check the output

```
anajob simple_lcio.slcio
```

```
dumpevent simple_lcio.slcio 1
```