Using SiD_o2_v03 with ILCSoft v02-00-02

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

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

Configure ILCSoft v02-00-02

```
cd lcgeo
mkdir build
cd build
source /cvmfs/ilc.desy.de/sw/x86_64_gcc49_sl6/v02-00-02/init_ilcsoft.sh
```

Then compile lcgeo with

```
rm ../plugins/LinearSortingPolicy.cpp
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
```

If you want, you can visualise the model with

```
geoDisplay SiD/compact/SiD_o2_v03/SiD_o2_v03.xml
```

and check volume overlaps with the TGeo command (while in ROOT):

```
root [0] gGeoManager->CheckOverlaps(0.01);
```

Run simulation with the SiD_o2_v03 model, e.g.

```
ddsim --compactFile SiD/compact/SiD_o2_v03/SiD_o2_v03.xml --runType batch --inputFile example/mcparticles.slcio --
outputFile=testSiD_o2_v03.slcio --numberOfEvents 100
```

Check the output, e.g.

```
anajob testSiD_o2_v03.slcio
dumpevent testSiD_o2_v03.slcio 1
```

To test reconstruction, first download this example XML: SiDReconstruction_o2_v03_calib1ct2.xml

Edit it to use the above testSiD_o2_v03.slcio as input file and point to the correct PandoraSettings*, gear XML, etc.

Then run

```
Marlin SiDReconstruction_o2_v03_calib1ct2.xml
```

Check reconstructed file with, for example

```
anajob  tracksSiD_o2_v03.slcio
dumpevent tracksSiD_o2_v03.slcio 1
```

*The gear and Pandora settings XMLs are attached below in case you do not have them already. Please adjust the paths to point to the correct likelihood files, etc.

gear_pandora.tgz