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DAWN

Dawn is a tool to visualize detector geometries. Dawn uses *.prim files which are produced for example by *GEANT4*. Using the Dawn GUI you can choose angle, zoom, etc. before producing the output postscript image.

DawnCut is used to modify the *.prim file before drawing it with Dawn. It removes certain sections to produce cut views of your geometry.

Installation

Dawn

- Download the source code from [here](#).
- Untar the file: `tar -xvzf dawn-[version].taz`
- Go to the freshly created directory: `cd dawn`
- Set up the installation by typing: `configure`
You have to fill in several settings. This list shows configuration which should work out of the box for SLC5.
 - ◆ Compiler: `g++`
 - ◆ Optimization: `-O2`
 - ◆ Window shell: `wish`
 - ◆ XLib includes: `-I/usr/include/X11`
 - ◆ XLib libraries: `-L/usr/lib/X11`
 - ◆ OpenGL includes: `-L/usr/include/GL`
 - ◆ OpenGL libraries: `-L/usr/lib`
- Afterwards execute `make` and `make install`

DawnCut

- Download the source code from [here](#).
- Untar the file: `tar -xvzf dawncut-[version].taz`
- Go to the freshly created directory: `cd dawncut`
- Build the code: `make`

How to make a nice display

- Define macro (`take_picture.mac`) with content
 - ◆ `/vis/open DAWNFILE 1000x1000+600+400`
 - ◆ `/vis/drawVolume`
 - ◆ `/vis/geometry/set/forceSolid all -1 true`
 - ◆ `/vis/geometry/set/visibility world_volume 0 0` (only if you want to draw surfaces not wireframe)
 - ◆ `/vis/viewer/flush`
 - Run `ddsim --runType=vis --compact=CLIC_o2_v03.xml`
 - Execute `/control/execute take_picture.mac`
 - Use `dawncut 0 1 0 0 g4_00.prim out.prim` to cut the output primitive (execute dawncut once to see the meaning of the numbers)
 - Run again to make a small layer `dawncut 0 -1 0 2 out.prim out2.prim`
 - Visualize with `dawn out2.prim`
 - ◆ Set polar to 90 and azimuth to 90 on Page1/4 Camera
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This topic: CLIC > DawnVisualization

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