
Subject: Creating geometry for a new detector

Posted by [Raghav Kunnawalkam](#) on Tue, 28 Feb 2012 23:36:35 GMT

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Hi All

I am trying to build a simpler version of the EIC collider from the rutherford example and i have build all my libraries for my new detector called simpletracker.

I am having problems when i try to create the geometry, i find that only for cave, magnet and the beam pipe, i have the necessary geometry header files.

I have no problems doing these,

```
FairModule* Cave = new FairCave("CAVE");
Cave->SetGeometryFileName("cave.geo");
run->AddModule(Cave);
```

```
FairModule* Pipe = new FairPipe("PIPE");
Pipe->SetGeometryFileName("pipe.geo");
run->AddModule(Pipe);
```

```
FairModule* Magnet = new FairMagnet("MAGNET");
Magnet->SetGeometryFileName("magnet.geo");
run->AddModule(Magnet);
```

But when i try to add another detector or module, for example

```
FairModule* Dpm = new FairDpm("DPM");
Dpm->SetGeometryFileName("dpm.geo");
run->AddModule(Dpm);
```

```
FairDetector* Tpc = new TpcDet("TPC", kTRUE);
Tpc->SetGeometryFileName("tpc.geo");
// Tpc->SetGeometryFileName("tpc_layered.geo");
run->AddModule(Tpc);
```

I am getting errors which say that

Processing run_simpletracker.C...

```
* The Pluto event generator
* Developed by HADES and all contributing AUTHORS
* www-hades.gsi.de/computing/pluto/html/PlutoIndex.html
* Version: 5.37
* Compiled on 26 January 2012
```

[INFO] Media file used : /Users/raghav/fairroot/example/geometry_eic/media.geo

[INFO] User path for detector geometry :

/Users/raghav/fairroot/example/geometry_eic/cave.geo

[INFO] User path for detector geometry :

/Users/raghav/fairroot/example/geometry_eic/pipe.geo

[INFO] User path for detector geometry :

```
/Users/raghav/fairroot/example/geometry_eic/magnet.geo
Error: Symbol FairDpm is not defined in current scope run_simpletracker.C:107:
Error: type FairDpm not defined
FILE:/Users/raghav/fairroot/example/simpletracker/macros/./run_simpletracker.C LINE:107
*** Interpreter error recovered ***
root [1]
```

Is there a way that i can create these required FairDpm.h and FairDpm.cxx etc. files. I checked panda root but i could not find something similar (maybe i missed it). I would also like to know if there is like a list of all the classes available for fairroot somewhere online. (i checked the documentation page in fairroot.gsi.de, but it did not have anything about fairmagnet.h which i do have.

Any help would be much appreciated. Thanks a lot