
Subject: Creating a new Detector out of 2 or more detectors
Posted by [Raghav Kunnawalkam](#) on Fri, 02 Mar 2012 18:53:00 GMT
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Hi All

My goal is to create the EIC detector and for it, i have individually created all the required detectors like (Hcal, Ecal, Tpc, etc..) and their geometries. and built them and got the respective libraries (libFairDircDet, etc..)
Now i am having the problem of linking them in the same macro.

My directory structure: ~/Fairroot/examples/ - has the following.
CMakeLists.txt HcalDet TrsDet geometry mcstack
DircDet HtckDet Tutorial1 geometry_eic passive
EmlfDet SitDet Tutorial2 geometry_old rutherford
FgtDet TpcDet gconfig geometry_v2 simpletracker

the macro that i am using is inside simpletracker/macros/run_simpletracker.C

I have also linked the libraries inside the cmakefile in simpletracker/src/CMakeLists.txt

```
...  
set(INCLUDE_DIRECTORIES  
  ${ROOT_INCLUDE_DIR}  
  #put here all directories where header files are located  
  ${FAIRROOT_SOURCE_DIR}/fairtools  
  ${FAIRROOT_SOURCE_DIR}/base  
  ${FAIRROOT_SOURCE_DIR}/parbase  
  ${FAIRROOT_SOURCE_DIR}/geobase  
  ${FAIRROOT_SOURCE_DIR}/example/mcstack  
  ${FAIRROOT_SOURCE_DIR}/example/simpletracker/src  
  ${FAIRROOT_SOURCE_DIR}/example/DircDet/src  
  ${FAIRROOT_SOURCE_DIR}/example/EmlfDet/src  
  ${FAIRROOT_SOURCE_DIR}/example/FgtDet/src  
  ${FAIRROOT_SOURCE_DIR}/example/HcalDet/src  
  ${FAIRROOT_SOURCE_DIR}/example/HtckDet/src  
  ${FAIRROOT_SOURCE_DIR}/example/SitDet/src  
  ${FAIRROOT_SOURCE_DIR}/example/TpcDet/src  
  ${FAIRROOT_SOURCE_DIR}/example/TrsDet/src  
)
```

```
include_directories( ${INCLUDE_DIRECTORIES})
```

```
...
```

Even still inside my macro, when i do

```
FairDetector* Dirc = new FairDircDet("DIRC", kFALSE);  
Dirc->SetGeometryFileName("dirc.geo");  
run->AddModule(Dirc);
```

Root tells me that :

Error: Symbol FairDircDet is not defined in current scope run_simpletracker.C:118:
Error: type FairDircDet not defined
FILE:/Users/raghav/fairroot/example/simpletracker/macros/./run_simpletracker.C LINE:118

I cannot find a tutorial or a link on the website telling me how to link 2 detectors.

Any help will be greatly appreciated.
Thanks a lot
