
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
