

Hi Felix,

I want once again report error which I have with tpc reconstruction macro. To be more precise /macro/run/tdrct/eta_c/run_reco_tpc_evt.C
It appeared after removing PndTpcClusterFinderTask task from this macro.

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=====
---- : SolenoidMap4
----
---- Field type : Soleniod Map
----
---- Field map grid :
---- x = 0.000 to 240.0 cm, 161 grid points, dx = 1.500 cm
---- y = 0.000 to 240.0 cm, 161 grid points, dy = 1.500 cm
---- z = 247.7 to 283.7 cm, 25 grid points, dz = 1.500 cm

---- Field centre position: ( 0.000, 0.000, 0.000) cm
---- Field scaling factor: 1.000
----
---- Field at origin is ( 0.000, 0.000, 0.000) kG
=====
I- FairGeane::FairGeane: Geane is Initialized
PndTpcGas: Reading data file: NEON-90_CO2-10_B2_PRES1013.asc
Fatal in <PndTpcGas::PndTpcGas>: Input File is not found
aborting
#0 0x00002b74ef5d79e5 in waitpid () from /lib/libc.so.6
#1 0x00002b74ef577e11 in do_system () from /lib/libc.so.6
#2 0x00002b74ed22ddc6 in TUnixSystem::StackTrace ()
    from /misc/cbmsoft/Lenny64/may11/fairsoft/tools/root/lib/libCore.so.5.29
#3 0x00002b74ed15929b in DefaultErrorHandler ()
    from /misc/cbmsoft/Lenny64/may11/fairsoft/tools/root/lib/libCore.so.5.29
#4 0x00002b74ed158c07 in ErrorHandler ()
    from /misc/cbmsoft/Lenny64/may11/fairsoft/tools/root/lib/libCore.so.5.29
#5 0x00002b74ed158d33 in Fatal ()
    from /misc/cbmsoft/Lenny64/may11/fairsoft/tools/root/lib/libCore.so.5.29
#6 0x00002b74faaee691 in PndTpcGas (this=0x62838e0,
    Filename=
0x7fff1c8cda30, E=400)
    at /d/panda02/dmelnich/pandaroot/pandaroot/tpc/PndTpcGas.cxx:53
#7 0x00002b74fab06c73 in PndTpcDigiMapper (this=0x436c010, autoinit=true)
    at /d/panda02/dmelnich/pandaroot/pandaroot/tpc/PndTpcDigiMapper.cxx:19
#8 0x00002b74fab12b40 in PndTpcDigiMapper::GetInstance (autoinit=true)
    at /d/panda02/dmelnich/pandaroot/pandaroot/tpc/PndTpcDigiMapper.h:63
#9 0x00002b74fb76a078 in PndTpcRiemannTrackingTask::Init (this=0x25c45d0)
    at
/d/panda02/dmelnich/pandaroot/pandaroot/tpc/tpcreco/PndTpcRiemannTrackingTask.cxx:219
#10 0x00002b74f6dfac73 in FairTask::InitTask (this=0x25c45d0)
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    at /d/panda02/dmelnich/pandaroot/pandaroot/base/FairTask.cxx:48
#11 0x00002b74f6dfad0a in FairTask::InitTasks (this=0x15484c0)
    at /d/panda02/dmelnich/pandaroot/pandaroot/base/FairTask.cxx:120
#12 0x00002b74f6dfacd4 in FairTask::InitTask (this=0x15484c0)
    at /d/panda02/dmelnich/pandaroot/pandaroot/base/FairTask.cxx:53
#13 0x00002b74f6df4da4 in FairRunAna::Init (this=0x15483f0)
    at /d/panda02/dmelnich/pandaroot/pandaroot/base/FairRunAna.cxx:208

```

It is solved when I copy NEON-90_CO2-10_B2_PRES1013.asc and two other files from /tpc/ directory to the directory from which I run macro but this solution doesn't work for batch farm. For me it's strange that you don't have it, but may be you have /tpc/ directory set in PATH?

Concerning the conversion to PndTracks and PndTrackCands, you can see how I added the PndGFTTrackToPndTrackConvertorTask for conversion into my version of tpc reconstruction macro /macro/run/tdrct/eta_c/run_reco_tpc_evt.C And if it will work, I suppose that it's best way for conversion at the moment.

Hovewer it still needs to be tested. My problem is that with this task and macro running at GSI lenny64 computer I have the following crash (with both GeaneTrackRep and RKTrackRep)

GFABsTrackRep::Covariances

5x5 matrix is as follows

	0	1	2	3	4
0	0.0007259	4.544e-05	4.304e-05	0.0002382	0.0002368
1	4.544e-05	3.24e-06	2.656e-06	2.096e-05	1.392e-05
2	4.304e-05	2.656e-06	2.973e-06	1.324e-05	2.026e-05
3	0.0002382	2.096e-05	1.324e-05	0.0002027	5.131e-05
4	0.0002368	1.392e-05	2.026e-05	5.131e-05	0.0002017

GFABsTrackRep::chi^2

4746.

+++++

starting track11

12 hits in track 11

*** Number of clusters in track: 12 ***

starting fit

Calling processTrack

Fitting done

RKTrackRep::RKutta ==> Too long extrapolation requested : 3007.6 cm !

X = -2.60625 Y = -11.9504 Z = 83.0668 COSx = 0.220186 COSy = 0.691942 COSz = 0.687557

Destination X = -20.70

Error: Symbol #include is not defined in current scope run_reco_tpc_evt.C:140:

Error: Symbol exception is not defined in current scope run_reco_tpc_evt.C:140:

Syntax Error: #include <exception> run_reco_tpc_evt.C:140:

```
Error: Symbol G__exception is not defined in current scope run_reco_tpc_evt.C:140:
Error: type G__exception not defined
FILE:/d/panda02/dmelnych/pandaroot/pandaroot/macro/run/tdrct/eta_c/./run_reco_tpc_evt.C
LINE:140
*** Interpreter error recovered ***
```

I suppose it's related to memory problem. But with my computer at work conversion worked for RKTrackRep at least for 20 events. I wanted to avoid memory problem running macro at GSI batch farm but the first problem stops me from doing it.

Dima
