

Hi,

I am doing TOF studies and also want to compare the results of my analysis between our BaBar-like software and PANDARoot. Therefore I'm analyzing the reaction

pbar p -> Phi Phi Pi0; Phi -> K+ K-;

all PHSP and at 2GeV beam momentum.

As background I'm considering Pi+ Pi- K+ K- Pi0

All with full simulation.

In PANDARoot I want to use the scripts from the PandaRootTutTorino09 which is tutorials/analysis/go_stt_evtgen.sh.

And I'm using the latest stable version from 10.8.2009, running on a GSI 32bit machine.

As first step I had to change run_reco_sttcombi.C:

Toggle Spoiler

```
- PndTpcLheTrackFinder* trackFinder = new PndTpcLheTrackFinder();
```

```
+ PndLheTrackFinder* trackFinder = new PndLheTrackFinder();
```

```
  fRun->AddTask(trackFinder);
```

```
- PndTpcLheTrackFitter* trackFitter = new PndTpcLheTrackFitter("fitting");
```

```
+ PndLheTrackFitter* trackFitter = new PndLheTrackFitter("fitting");
```

```
  fRun->AddTask(trackFitter);
```

(output of svn diff run_reco_sttcombi.C)

so removed the "Tpc" letters

Then it crashes whether I run over 10 events or more at different points.

On more events it crashes in run_kalman_stt.C with the following error messages in 4-kalman.log:

Toggle Spoiler

```
#1 0x412078c0 in __DTOR_END__ () from /lib/libc.so.6
```

```
#2 0x41118442 in do_system () from /lib/libc.so.6
```

```
#3 0x41093c5f in system () from /lib/libpthread.so.0
```

```
#4 0x40237363 in TUnixSystem::Exec (this=0x80e2a78,  
    at core/unix/src/TUnixSystem.cxx:1941
```

```
#5 0x40237836 in TUnixSystem::StackTrace (this=0x80e2a78) at  
core/unix/src/TUnixSystem.cxx:2121
```

```
#6 0x402356f5 in TUnixSystem::DispatchSignals (this=0x80e2a78,  
sig=kSigFloatingException) at core/unix/src/TUnixSystem.cxx:1089
```

```
#7 0x402336b4 in SigHandler (sig=kSigFloatingException) at  
core/unix/src/TUnixSystem.cxx:351
```

```
#8 0x4023a6d3 in sighandler (sig=8) at core/unix/src/TUnixSystem.cxx:3344
```

```
#9 0x41092825 in __pthread_sighandler () from /lib/libpthread.so.0
```

```
#10 <signal handler called>
```

```
#11 0x45e8ed38 in FairGeanePro::Propagate (this=0x9943150, TStart=0xbfd30760,  
TEnd=0xbfd30e10, PDG=-13)
```

```
    at /d/panda02/brth/proot/stable/geane/FairGeanePro.cxx:157
```

```
#12 0x4439ca5a in GeaneTrackRep::extrapolate (this=0xe5430a8, pl=@0xbfd31ce0,
```

```

statePred=@0xbfd31e60, covPred=@0xbfd31d60)
  at /d/panda02/broth/proot/stable/trackrep/GeaneTrackRep.cxx:167
#13 0x4431b285 in Kalman::processHit (this=0xbfd333a0, tr=0xe542370, ihit=0, irep=0,
rejectOutlier=false)
  at /d/panda02/broth/proot/stable/genfit/Kalman.cxx:248
#14 0x4431a44f in Kalman::fittingPass (this=0xbfd333a0, trk=0xe542370, direction=1)
  at /d/panda02/broth/proot/stable/genfit/Kalman.cxx:140
#15 0x44319be8 in Kalman::processTrack (this=0xbfd333a0, trk=0xe542370) at
/d/panda02/broth/proot/stable/genfit/Kalman.cxx:38
#16 0x45e16ae5 in PndLheKalmanTask::Exec (this=0xb206128, opt=0x43d530a0 "")
  at /d/panda02/broth/proot/stable/lhetrack/PndLheKalmanTask.cxx:238
#17 0x401b16af in TTask::ExecuteTasks (this=0x86f11d8, option=0x43d530a0 "") at
core/base/src/TTask.cxx:298
#18 0x401b14b1 in TTask::ExecuteTask (this=0x86f11d8, option=0x43d530a0 "") at
core/base/src/TTask.cxx:261
#19 0x43cdc46d in FairRunAna::Run (this=0x86f1150, Ev_start=0, Ev_end=100) at
/d/panda02/broth/proot/stable/base/FairRunAna.cxx:248
#20 0x43d1a746 in G__FairDict_532_0_5 (result7=0xbfd3a900, funcname=0x86ef1a8 "\001",
libp=0xbfd34a80, hash=0)
  at /d/panda02/broth/proot/stable/build/base/FairDict.cxx:9067
#21 0x407b6126 in Cint::G__ExceptionWrapper (funcp=0x43d1a642 <G__FairDict_532_0_5>,
result7=0xbfd3a900, funcname=0x86ef1a8 "\001",
  libp=0xbfd34a80, hash=0) at cint/cint/src/Api.cxx:364
#22 0x408757f5 in G__execute_call (result7=0xbfd3a900, libp=0xbfd34a80, ifunc=0x86ef1a8,
ifn=0) at cint/cint/src/newlink.cxx:2305
#23 0x40875ed8 in G__call_cppfunc (result7=0xbfd3a900, libp=0xbfd34a80, ifunc=0x86ef1a8,
ifn=0) at cint/cint/src/newlink.cxx:2471
#24 0x40855818 in G__interpret_func (result7=0xbfd3a900, funcname=0xbfd3a500 "Run",
libp=0xbfd34a80, hash=309, p_ifunc=0x86ef1a8,
  funcmatch=1, memfunc_flag=1) at cint/cint/src/ifunc.cxx:5245
#25 0x40834ca1 in G__getfunction (item=0xbfd3d356 "Run(0,nEvents)", known3=0xbfd3cb9c,
memfunc_flag=1) at cint/cint/src/func.cxx:2534
#26 0x40940b6b in G__getstructmem (store_var_type=112, varname=0xbfd3ab90 "",
membername=0xbfd3d356 "Run(0,nEvents)",
  tagname=0xbfd3ada0 "fRun", known2=0xbfd3cb9c, varglobal=0x409ebec0, objptr=2) at
cint/cint/src/var.cxx:6623
#27 0x409329d7 in G__getvariable (item=0xbfd3d350 "fRun->Run(0,nEvents)",
known=0xbfd3cb9c, varglobal=0x409ebec0, varlocal=0xbfd3f8a0)
  at cint/cint/src/var.cxx:5252
#28 0x40825f01 in G__getitem (item=0xbfd3d350 "fRun->Run(0,nEvents)") at
cint/cint/src/expr.cxx:1884
#29 0x4082387b in G__getexpr (expression=0xbfd3ec20 "fRun->Run(0,nEvents)") at
cint/cint/src/expr.cxx:1470
#30 0x4089fde5 in G__exec_function (statement=0xbfd3ec20 "fRun->Run(0,nEvents)",
pc=0xbfd3f04c, piout=0xbfd3f044,
  plargestep=0xbfd3f034, presult=0xbfd3ebf0) at cint/cint/src/parse.cxx:601
#31 0x408af2a6 in G__exec_statement (mparen=0xbfd3f56c) at cint/cint/src/parse.cxx:6972
#32 0x408587a3 in G__interpret_func (result7=0xbfd45d40, funcname=0xbfd45940
"run_kalman_stt", libp=0xbfd3fec0, hash=1506,
  p_ifunc=0x82b4fd0, funcmatch=1, memfunc_flag=0) at cint/cint/src/ifunc.cxx:6080
#33 0x4083584a in G__getfunction (item=0xbfd46640 "run_kalman_stt(100)",
known3=0xbfd45e8c, memfunc_flag=0)

```

```

    at cint/cint/src/func.cxx:2745
#34 0x40826044 in G__getitem (item=0xbfd46640 "run_kalman_stt(100)") at
cint/cint/src/expr.cxx:1896
#35 0x4082387b in G__getexpr (expression=0x82f39e8 "run_kalman_stt(100)") at
cint/cint/src/expr.cxx:1470
#36 0x408114ff in G__calc_internal (exprwithspace=0xbfd49d90 "run_kalman_stt(100)") at
cint/cint/src/expr.cxx:1061
#37 0x408b7d27 in G__process_cmd (line=0x406e9b10 "1", prompt=0x80e62bc "",
more=0x80e62b4, err=0xbfd4a60c, rslt=0xbfd4a610)
    at cint/cint/src/pause.cxx:2234
...

```

whole file is in
/d/panda02/broth/proot/stable/tutorials/analysis/data_4crashed

In case of running only over 10 events it finishes run_kalman_stt.C successfully, but crashes in the next step, in makeTCands_stt.C. The error message in 5-microwriter.log is here:

Toggle Spoiler

```

#1 0x412078c0 in __DTOR_END__ () from /lib/libc.so.6
#2 0x41118442 in do_system () from /lib/libc.so.6
#3 0x41093c5f in system () from /lib/libpthread.so.0
#4 0x40237363 in TUnixSystem::Exec (this=0x80e2a78,
    at core/unix/src/TUnixSystem.cxx:1941
#5 0x40237836 in TUnixSystem::StackTrace (this=0x80e2a78) at
core/unix/src/TUnixSystem.cxx:2121
#6 0x402356f5 in TUnixSystem::DispatchSignals (this=0x80e2a78,
sig=kSigSegmentationViolation) at core/unix/src/TUnixSystem.cxx:1089
#7 0x402336b4 in SigHandler (sig=kSigSegmentationViolation) at
core/unix/src/TUnixSystem.cxx:351
#8 0x4023a6d3 in sighandler (sig=11) at core/unix/src/TUnixSystem.cxx:3344
#9 0x41092825 in __pthread_sighandler () from /lib/libpthread.so.0
#10 <signal handler called>
#11 0x458b1024 in typeinfo name for PndMvdConvertApvTask () from
/d/panda02/broth/proot/stable/build/lib/libMvd.so
#12 0x443171e6 in Track::getCardinalRep (this=0x96905f0) at Track.h:182
#13 0x44333b1b in Track::getPos (this=0x96905f0) at Track.h:202
#14 0x462bc2bc in PndMicroWriter::Exec (this=0xb204300, opt=0x43d530a0 "")
    at /d/panda02/broth/proot/stable/PndTools/AnalysisTools/PndMicroWriter.cxx:331
#15 0x401b16af in TTask::ExecuteTasks (this=0x86f26b0, option=0x43d530a0 "") at
core/base/src/TTask.cxx:298
#16 0x401b14b1 in TTask::ExecuteTask (this=0x86f26b0, option=0x43d530a0 "") at
core/base/src/TTask.cxx:261
#17 0x43cdc46d in FairRunAna::Run (this=0x86f2628, Ev_start=0, Ev_end=10) at
/d/panda02/broth/proot/stable/base/FairRunAna.cxx:248
#18 0x43d1a746 in G__FairDict_532_0_5 (result7=0xbfb80740, funcname=0x86f0680 "\001",
libp=0xbfb7a8c0, hash=0)
    at /d/panda02/broth/proot/stable/build/base/FairDict.cxx:9067
#19 0x407b6126 in Cint::G__ExceptionWrapper (funcp=0x43d1a642 <G__FairDict_532_0_5>,
result7=0xbfb80740, funcname=0x86f0680 "\001",

```

```

libp=0xbfb7a8c0, hash=0) at cint/cint/src/Api.cxx:364
#20 0x408757f5 in G__execute_call (result7=0xbfb80740, libp=0xbfb7a8c0, ifunc=0x86f0680,
ifn=0) at cint/cint/src/newlink.cxx:2305
#21 0x40875ed8 in G__call_cppfunc (result7=0xbfb80740, libp=0xbfb7a8c0, ifunc=0x86f0680,
ifn=0) at cint/cint/src/newlink.cxx:2471
#22 0x40855818 in G__interpret_func (result7=0xbfb80740, funcname=0xbfb80340 "Run",
libp=0xbfb7a8c0, hash=309, p_ifunc=0x86f0680,
funcmatch=1, memfunc_flag=1) at cint/cint/src/ifunc.cxx:5245
#23 0x40834ca1 in G__getfunction (item=0xbfb83196 "Run(0,nevt)", known3=0xbfb829dc,
memfunc_flag=1) at cint/cint/src/func.cxx:2534
#24 0x40940b6b in G__getstructmem (store_var_type=112, varname=0xbfb809d0 "",
membername=0xbfb83196 "Run(0,nevt)",
tagname=0xbfb80be0 "fRun", known2=0xbfb829dc, varglobal=0x409ebec0, objptr=2) at
cint/cint/src/var.cxx:6623
#25 0x409329d7 in G__getvariable (item=0xbfb83190 "fRun->Run(0,nevt)",
known=0xbfb829dc, varglobal=0x409ebec0, varlocal=0xbfb856e0)
at cint/cint/src/var.cxx:5252
#26 0x40825f01 in G__getitem (item=0xbfb83190 "fRun->Run(0,nevt)") at
cint/cint/src/expr.cxx:1884
#27 0x4082387b in G__getexpr (expression=0xbfb84a60 "fRun->Run(0,nevt)") at
cint/cint/src/expr.cxx:1470
#28 0x4089fde5 in G__exec_function (statement=0xbfb84a60 "fRun->Run(0,nevt)",
pc=0xbfb84e8c, piout=0xbfb84e84, plargestep=0xbfb84e74,
presult=0xbfb84a30) at cint/cint/src/parse.cxx:601
#29 0x408af2a6 in G__exec_statement (mparen=0xbfb853ac) at cint/cint/src/parse.cxx:6972
#30 0x408587a3 in G__interpret_func (result7=0xbfb8bb80, funcname=0xbfb8b780
"makeTCands_stt", libp=0xbfb85d00, hash=1429,
p_ifunc=0x82b4fd0, funcmatch=1, memfunc_flag=0) at cint/cint/src/ifunc.cxx:6080
#31 0x4083584a in G__getfunction (item=0xbfb8c480 "makeTCands_stt(10)",
known3=0xbfb8bccc, memfunc_flag=0)
at cint/cint/src/func.cxx:2745
#32 0x40826044 in G__getitem (item=0xbfb8c480 "makeTCands_stt(10)") at
cint/cint/src/expr.cxx:1896
#33 0x4082387b in G__getexpr (expression=0x82f31f0 "makeTCands_stt(10)") at
cint/cint/src/expr.cxx:1470
#34 0x408114ff in G__calc_internal (exprwithspace=0xbfb8fbd0 "makeTCands_stt(10)") at
cint/cint/src/expr.cxx:1061
#35 0x408b7d27 in G__process_cmd (line=0x406e9b0f "EventSummary_]",
prompt=0x80e62bc "", more=0x80e62b4, err=0xbfb9044c,
rslt=0xbfb90450) at cint/cint/src/pause.cxx:2234
#36 0x4021e958 in TCint::ProcessLine (this=0x80e6298, line=0x406e9b0f "EventSummary_]",
error=0xbfb92c54)
at core/meta/src/TCint.cxx:339
#37 0x4021ed70 in TCint::ProcessLineSynch (this=0x80e6298, line=0x406e9b0f
"EventSummary_]", error=0xbfb92c54)
at core/meta/src/TCint.cxx:406
#38 0x4013581a in TApplication::ExecuteFile (file=0xbfb90bf3 "makeTCands_stt.C(10)",
error=0xbfb92c54)
at core/base/src/TApplication.cxx:938
#39 0x40135094 in TApplication::ProcessFile (this=0x81078b0, file=0xbfb90bf3
"makeTCands_stt.C(10)", error=0xbfb92c54)
at core/base/src/TApplication.cxx:825

```

...

whole file is in
/d/panda02/broth/proot/stable/tutorials/analysis/data_5crashed

Did I use the correct macro with correct input?
Can some expert help me in this context?

Cheers,
Bernhard

P.S.

To compare the results between PANDARoot and the BaBar-like software it would be great to have the same data-sets available.

For signal (ppbarsystem -> $\Phi\Phi\pi^0$, see above) I have now 100k events and for background $\pi^+\pi^-\pi^0$ 10M events for the BaBar-like software available. Is there an opportunity to order such an amount of data for doing analysis with PANDARoot? (all fullsim)
