
Subject: [WONTFIX] Tutorial macro - trunk

Posted by [Elisabetta Prencipe \(2\)](#) on Thu, 08 Aug 2013 14:08:24 GMT

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Dear all,

I updated one hour ago the trunk and right now I am trying to run just the basic tutorial macros in /tutorial/rho.

I run the macro tut_sim.C

The root file is created, but I see the error message saying that the output is not readable. However, I can open the plots and they look ok.

then I run

tut_digi.C, and I got this:

```
Error in <FairRuntimeDb::initContainers()>: Error occurred during initialization
-I container name PndGeoSttPar
Info in (PndGeoHandling::Instance): Making a new instance using the framework.
Fatal in <PndGeoHandling::PndGeoHandling>: No gGeoManager found.
aborting
#0 0x00f43416 in __kernel_vsyscall ()
#1 0x008c8e43 in __waitpid_nocancel () from /lib/libc.so.6
#2 0x008654c3 in do_system () from /lib/libc.so.6
#3 0x009e824d in system () from /lib/libpthread.so.0
#4 0x011c4873 in TUnixSystem::Exec (this=0x91da750,
    shellcmd=0xa7d7a30 "/home/prencipe/panda/ExternalPackages092012/build_sep12/etc/gdb-backtrac e.sh 16636
1>&2")
    at /home/prencipe/panda/ExternalPackages092012/sep12/tools/root/core/unix/s
rc/TUnixSystem.cxx:2084
#5 0x011c509c in TUnixSystem::StackTrace (this=0x91da750)
    at /home/prencipe/panda/ExternalPackages092012/sep12/tools/root/core/unix/s
rc/TUnixSystem.cxx:2332
#6 0x010eccd5 in DefaultErrorHandler (level=6000, abort_bool=true,
    location=0x177632d "PndGeoHandling::PndGeoHandling",
    msg=0x98c9a30 "No gGeoManager found.")
    at /home/prencipe/panda/ExternalPackages092012/sep12/tools/root/core/base/s
rc/TError.cxx:188
#7 0x010ecf7a in ErrorHandler (level=6000,
    location=0x177632d "PndGeoHandling::PndGeoHandling",
    fmt=0x1e56a4a "No gGeoManager found.",
    at /home/prencipe/panda/ExternalPackages092012/sep12/tools/root/core/base/s
rc/TError.cxx:244
#8 0x01101cfe in TObject::DoError (this=0xa7d7590, level=6000,
    location=0x1e56993 "PndGeoHandling",
    fmt=0x1e56a4a "No gGeoManager found.",
    at /home/prencipe/panda/ExternalPackages092012/sep12/tools/root/core/base/s
```

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rc/TObject.cxx:861
#9 0x01101ed8 in TObject::Fatal (this=0xa7d7590,
    location=0x1e56993 "PndGeoHandling", fmt=0x1e56a4a "No gGeoManager found.")
    at /home/prencipe/panda/ExternalPackages092012/sep12/tools/root/core/base/s
rc/TObject.cxx:926
#10 0x01e272ca in PndGeoHandling::SetParContainers (this=0xa7d7590)
    at /home/prencipe/panda/pandaroot/prova/apr13/PndTools/generalTools/PndGeoH
andling.cxx:72
#11 0x03dc24f7 in PndSdsHybridHitProducer::SetParContainers (this=0x9916e60)
    at /home/prencipe/panda/pandaroot/prova/apr13/sds/SdsDigi/PndSdsHybridHitPr
oducer.cxx:152
#12 0x0906ac7b in PndMvdHybridHitProducer::SetParContainers (this=0x9916e60)
    at /home/prencipe/panda/pandaroot/prova/apr13/mvd/MvdDigi/PndMvdHybridHitPr
oducer.cxx:63
#13 0x07d10ff8 in FairTask::SetParTask (this=0x9916e60)
    at /home/prencipe/panda/pandaroot/prova/apr13/base/steer/FairTask.cxx:78
#14 0x07d1130f in FairTask::SetParTasks (this=0x9916da0)
    at /home/prencipe/panda/pandaroot/prova/apr13/base/steer/FairTask.cxx:142
#15 0x07d11003 in FairTask::SetParTask (this=0x9916da0)
    at /home/prencipe/panda/pandaroot/prova/apr13/base/steer/FairTask.cxx:79
#16 0x07d1130f in FairTask::SetParTasks (this=0x98115f8)
    at /home/prencipe/panda/pandaroot/prova/apr13/base/steer/FairTask.cxx:142
#17 0x07d11003 in FairTask::SetParTask (this=0x98115f8)
    at /home/prencipe/panda/pandaroot/prova/apr13/base/steer/FairTask.cxx:79
#18 0x07d0907f in FairRunAna::Init (this=0x98114b0)
    at /home/prencipe/panda/pandaroot/prova/apr13/base/steer/FairRunAna.cxx:230
#19 0x07d65237 in G__G__BaseDict_617_0_5 (result7=0xbfd6a1f8,
    funcname=0x97f90b8 "", libp=0xbfd5fbb4, hash=0)
    at /home/prencipe/panda/pandaroot/prova/apr13/buildtrunk/base/G__BaseDict.c
xx:8410
#20 0x02afa7bf in Cint::G__ExceptionWrapper (
    funcp=0x7d65211 <G__G__BaseDict_617_0_5(G__value*, char const*, G__param*, int)>,
    result7=0xbfd6a1f8, funcname=0x97f90b8 "", libp=0xbfd5fbb4, hash=0)
    at cint/cint/src/Api.cxx:393
#21 0x02bc6b70 in G__execute_call (result7=0xbfd6a1f8, libp=0xbfd5fbb4,
    ifunc=0x97f90b8, ifn=0) at cint/cint/src/newlink.cxx:2408
#22 0x02bc73af in G__call_cppfunc (result7=0xbfd6a1f8, libp=0xbfd5fbb4,
    ifunc=0x97f90b8, ifn=0) at cint/cint/src/newlink.cxx:2612
#23 0x02ba2f0e in G__interpret_func (result7=0xbfd6a1f8,
    funcname=0x96348b0 "Init", libp=0xbfd5fbb4, hash=404, p_ifunc=0x97f90b8,
    funcmatch=1, memfunc_flag=1) at cint/cint/src/ifunc.cxx:5791
#24 0x02b7f061 in G__getfunction (item=0x91f3c56 "Init()", known3=0xbfd6af3c,
    memfunc_flag=1) at cint/cint/src/func.cxx:2660
#25 0x02ca592b in G__getstructmem (store_var_type=112, varname=...,
    membername=0x91f3c56 "Init()", memnamesize=2147483647,
    tagname=0x9633c98 "fRun", known2=0xbfd6af3c, varglobal=0x2d683a0, objptr=2)
    at cint/cint/src/var.cxx:6818
#26 0x02c96806 in G__getvariable (item=0x91f3c50 "fRun->Init()",
    known=0xbfd6af3c, varglobal=0x2d683a0, varlocal=0xbfd6d5b4)
    at cint/cint/src/var.cxx:5404
#27 0x02b6ef56 in G__getitem (item=0x91f3c50 "fRun->Init()")
    at cint/cint/src/expr.cxx:1906
#28 0x02b6c984 in G__getexpr (expression=0x9205478 "fRun->Init()")

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    at cint/cint/src/expr.cxx:1488
#29 0x02bf763b in G__exec_function (statement=..., pc=0xbfd6cdc4,
    piout=0xbfd6cdc0, plargestep=0xbfd6cdb8, presult=0xbfd6cd40)
    at cint/cint/src/parse.cxx:645
#30 0x02c07d13 in G__exec_statement (mparen=0xbfd6d6f4)
    at cint/cint/src/parse.cxx:7364
#31 0x02ba5dda in G__interpret_func (result7=0xbfd77fe8,
    funcname=0x91e7740 "tut_dig", libp=0xbfd6d9a4, hash=752,
    p_ifunc=0x963a4d0, funcmatch=1, memfunc_flag=0)
    at cint/cint/src/ifunc.cxx:6710
#32 0x02b7fd2a in G__getfunction (item=0x91e6f30 "tut_dig()",
    known3=0xbfd781cc, memfunc_flag=0) at cint/cint/src/func.cxx:2901
#33 0x02b6f079 in G__getitem (item=0x91e6f30 "tut_dig()")
    at cint/cint/src/expr.cxx:1918
#34 0x02b6c984 in G__getexpr (expression=0x9665bf8 "tut_dig()")
    at cint/cint/src/expr.cxx:1488
#35 0x02b59b55 in G__calc_internal (exprwithspace=0x91e8f68 "tut_dig()")
    at cint/cint/src/expr.cxx:1071
#36 0x02c12875 in G__process_cmd (
    line=0x9664848 ".X /home/prencipe/panda/pandaroot/prova/apr13/tutorials/rho/./tut_dig.C",
    prompt=0x91dd9cc "", more=0x91dd9c4, err=0xbfd7aed4,
    rslt=0xbfd7aea0) at cint/cint/src/pause.cxx:2333
#37 0x0117f00f in TCint::ProcessLine (this=0x91dd998,
    line=0x9664848 ".X /home/prencipe/panda/pandaroot/prova/apr13/tutorials/rho/./tut_dig.C",
    error=0x0)
    at /home/prencipe/panda/ExternalPackages092012/sep12/tools/root/core/meta/s
rc/TCint.cxx:545
#38 0x0117f586 in TCint::ProcessLineSynch (this=0x91dd998,
    line=0x9664848 ".X /home/prencipe/panda/pandaroot/prova/apr13/tutorials/rho/./tut_dig.C",
    error=0x0)
    at /home/prencipe/panda/ExternalPackages092012/sep12/tools/root/core/meta/s
rc/TCint.cxx:624
#39 0x010cfb06 in TApplication::ExecuteFile (file=0x9665a7b "tut_dig.C",
    error=0x0, keep=false)
    at /home/prencipe/panda/ExternalPackages092012/sep12/tools/root/core/base/s
rc/TApplication.cxx:1028
#40 0x010cf3b6 in TApplication::ProcessFile (this=0x92a4a18,
    file=0x9665a7b "tut_dig.C", error=0x0, keep=false)
    at /home/prencipe/panda/ExternalPackages092012/sep12/tools/root/core/base/s
rc/TApplication.cxx:904
#41 0x010cf2eb in TApplication::ProcessLine (this=0x92a4a18,
    line=0x9665a78 ".x tut_dig.C", sync=false, err=0x0)
    at /home/prencipe/panda/ExternalPackages092012/sep12/tools/root/core/base/s
rc/TApplication.cxx:877
#42 0x00e42743 in TRint::HandleTermInput (this=0x92a4a18)
    at /home/prencipe/panda/ExternalPackages092012/sep12/tools/root/core/rint/s
rc/TRint.cxx:584
#43 0x00e408cc in TTermInputHandler::Notify (this=0x9649668)
    at /home/prencipe/panda/ExternalPackages092012/sep12/tools/root/core/rint/s
rc/TRint.cxx:125
#44 0x00e43b8e in TTermInputHandler::ReadNotify (this=0x9649668)
    at /home/prencipe/panda/ExternalPackages092012/sep12/tools/root/core/rint/s

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rc/TRint.cxx:117
#45 0x011c2f17 in TUnixSystem::CheckDescriptors (this=0x91da750)
  at /home/prencipe/panda/ExternalPackages092012/sep12/tools/root/core/unix/s
rc/TUnixSystem.cxx:1312
#46 0x011c22c8 in TUnixSystem::DispatchOneEvent (this=0x91da750,
  pendingOnly=false)
  at /home/prencipe/panda/ExternalPackages092012/sep12/tools/root/core/unix/s
rc/TUnixSystem.cxx:1019
#47 0x01136afb in TSystem::InnerLoop (this=0x91da750)
  at /home/prencipe/panda/ExternalPackages092012/sep12/tools/root/core/base/s
rc/TSystem.cxx:408
#48 0x011368cd in TSystem::Run (this=0x91da750)
  at /home/prencipe/panda/ExternalPackages092012/sep12/tools/root/core/base/s
rc/TSystem.cxx:358
#49 0x010cfc7e in TApplication::Run (this=0x92a4a18, retrn=false)
  at /home/prencipe/panda/ExternalPackages092012/sep12/tools/root/core/base/s
rc/TApplication.cxx:1044
#50 0x00e41f72 in TRint::Run (this=0x92a4a18, retrn=false)
  at /home/prencipe/panda/ExternalPackages092012/sep12/tools/root/core/rint/s
rc/TRint.cxx:455
#51 0x08048ec3 in main (argc=1, argv=0xbfd7dea4)
  at /home/prencipe/panda/ExternalPackages092012/sep12/tools/root/main/src/rm
ain.cxx:29
[prencipe@bettapc rho]$
```

Is it possible to have a tutorial running in PandaRoot, somewhere? This is really frustrating....
What else is wrong, now? which revision should I use to see the basic plots of the tutorial
macro tut_ana.C?

thanks for your help, Elisabetta
Last revision: 23001

Subject: Re: Tutorial macro - trunk
Posted by [StefanoSpataro](#) on Thu, 08 Aug 2013 14:23:37 GMT
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I have tried right now and it works for me.
Are you in the tutorials/rho folder? Maybe you can remove old .root file and try again.

I have tried under Linux and under Mac and it worked in both the cases, running tut_sim and
tut_dig
The problem of storing files happens sometimes when you try to execute the macro from some
"strange" folder and the paths are not properly set.. then you have no write permissions on
some folder and you get the crash.

Only trying to guess.

Subject: Re: Tutorial macro - trunk
Posted by [Elisabetta Prencipe \(2\)](#) on Fri, 09 Aug 2013 07:28:45 GMT
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Ciao Stefano,

I tried again to compile the trunk and run the tutorial macros, following your suggestion to remove the old root files, and it works now. Thank you!

I tried to run a basic analysis for 2 different decay channels: psi(2S) (the one in the tutorial) and a decay of psi(4040). I can confirm that the trunk-revision 23001 is basically running, at least for decays where charged particles got involved, and the mass plots make sense.

I see several improvements compared to release apr13, in the new trunk rev.23001. I tried to update conformally the release apr13: my macros there are still running, but some results do not make any sense, e.g. in some cases I have got even wrong mass of particles, which does not happen in the new trunk, using exactly the same macro... So, for people who start now, I would also suggest to use the new trunk-rev 23001.

[..and I am not using any 'strange' folder, here]

Regards, Elisabetta

Subject: Analysis macro - trunk rev21003
Posted by [Elisabetta Prencipe \(2\)](#) on Tue, 20 Aug 2013 11:06:04 GMT
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Dear all,

I am still running in the trunk rev-21003, with updated External Packages to the one provided for the apr13 release.

I run my sim-, digi-, reco-, pid- macro with only warnings, no crash on the analysis of Ds(2535). The warning on the missing ems modul n.8 in the digi process, still persists. When I run my analysis macro (which is something very easy) I got several times the following error message; it does not produce any crash, but I would like to have some clarifications. Here below I report the error message.

Did anybody find this before?

Thanks in advance for your useful help in understanding.

Best regards, Elisabetta

```
Error in <TDecompLU::InvertLU>: matrix is singular, 0 diag elements < tolerance of 2.2204e-16
Error in <TDecompLU::DecomposeLUCrout>: matrix is singular
Error in <TDecompLU::InvertLU>: matrix is singular, 0 diag elements < tolerance of 2.2204e-16
evt 3100
evt 3200
evt 3300
Error in <TDecompLU::DecomposeLUCrout>: matrix is singular
Error in <TDecompLU::InvertLU>: matrix is singular, 0 diag elements < tolerance of 2.2204e-16
```

Error in <TDecompLU::DecomposeLUCrout>: matrix is singular
Error in <TDecompLU::InvertLU>: matrix is singular, 0 diag elements < tolerance of 2.2204e-16
Error in <TDecompLU::DecomposeLUCrout>: matrix is singular
evt 3400

...
...

Subject: Re: Analysis macro - trunk rev21003
Posted by [Stefano Spataro](#) on Tue, 20 Aug 2013 11:11:24 GMT
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Genfit is not able to minimize something, the track most probably won't be fitted.
It is fine.

Subject: Re: Analysis macro - trunk rev21003
Posted by [Klaus Götzen](#) on Tue, 20 Aug 2013 11:44:44 GMT
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Hi Elisabetta,

these error messages come from one of the fitters, when the matrix inversion fails at some point. I always have a lot of these errors when fitting.

Unfortunately one cannot switch them off (I think), since they come directly from ROOT's TMatrix.

Best,
Klaus

Subject: Re: Analysis macro - trunk rev21003
Posted by [Lu Cao](#) on Tue, 20 Aug 2013 11:55:03 GMT
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Hi,

It happened in my case before, when some diagonal matrix elements had too small value, e.g. 2.2204e-16. They make the whole matrix close to be "singular"; then it can not be properly diagonalized to solve the eigen problem of χ^2 and fails to get a better fitted parameter in the current iteration.

If there are too many these messages, the resolutions are always far away from the expectation in my analysis due to poor kinematics.

Best regards,

