Subject: Event display weird behaviour
Posted by lanyizsombor on Thu, 16 Mar 2017 20:23:42 GMT
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Hi Dima,

The event displayer's (eg. the one located at /R3BRoot/macros/r3b/eventDisplay.C) behaviour is weird, the colors are not well set, everything's color is the same, and the shadowing isn't good too. Beside that problem, when I close the Eve Main Window, root crashes. I uploaded a picture of the display, and here is the crash message:

==========
There was a crash (kSigSegmentationViolation).
This is the entire stack trace of all threads:
==========
#0 0xb773dc31 in __kernel_vsyscall ()
#1 0xb6f5dfb3 in __waitpid_nocancel () at ../sysdeps/unix/syscall-template.S:84
#2 0xb6ee89d6 in do_system (line=0xdc7a7b0
"/home/lanyi/FairSoft/build-may16p1/share/root/etc/gdb-backtrace.sh 9380 1>&2") at
../sysdeps/posix/system.c:148
#3 0xb758f42b in TUnixSystem::Exec (this=0x8e21698, shellcmd=0xdc7a7b0
"/home/lanyi/FairSoft/build-may16p1/share/root/etc/gdb-backtrace.sh 9380 1>&2") at
/home/lanyi/FairSoft/FairSoft-may16p1/tools/root/core/unix/src/TUnixSyst em.cxx:2118
#4 0xb758fca6 in TUnixSystem::StackTrace (this=0x8e21698) at
/home/lanyi/FairSoft/FairSoft-may16p1/tools/root/core/unix/src/TUnixSyst em.cxx:2405
#5 0xb75936fa in TUnixSystem::DispatchSignals (this=0x8e21698,
sig=kSigSegmentationViolation) at
/home/lanyi/FairSoft/FairSoft-may16p1/tools/root/core/unix/src/TUnixSyst em.cxx:3663
#6 0xb758b480 in SigHandler (sig=kSigSegmentationViolation) at
/home/lanyi/FairSoft/FairSoft-may16p1/tools/root/core/unix/src/TUnixSyst em.cxx:408
#7 0xb7593655 in sighandler (sig=11) at
/home/lanyi/FairSoft/FairSoft-may16p1/tools/root/core/unix/src/TUnixSyst em.cxx:3640
#8 0xb7584a9f in textinput::TerminalConfigUnix::HandleSignal (this=0xb7705400
<textinput::TerminalConfigUnix::Get()::s>, signum=11) at
/home/lanyi/FairSoft/FairSoft-may16p1/tools/root/core/textinput/src/text
input/TerminalConfigUnix.cpp:100
#9 0xb7584793 in (anonymous namespace)::TerminalConfigUnix__handleSignal (signum=11)
at /home/lanyi/FairSoft/FairSoft-may16p1/tools/root/core/textinput/src/text
input/TerminalConfigUnix.cpp:36
#10 <signal handler called>
#11 0x0dc7b8a0 in ?? ()
#12 0xb74f271c in TObjArray::Delete (this=0xdc5e580, opt=0xa37856c1 "") at
/home/lanyi/FairSoft/FairSoft-may16p1/tools/root/core/cont/src/TObjArray .cxx:355
#13 0xa36ce649 in TGeoManager::~TGeoManager (this=0xdc4f6c8, __in_chrg=<optimized
out>) at /home/lanyi/FairSoft/FairSoft-may16p1/tools/root/geom/geom/src/TGeoManag
er.cxx:673
#14 0xa36ceaab in TGeoManager::~TGeoManager (this=0xdc4f6c8, __in_chrg=<optimized
out>) at /home/lanyi/FairSoft/FairSoft-may16p1/tools/root/geom/geom/src/TGeoManag
er.cxx:691
#15 0xb74e86de in TCollection::GarbageCollect (obj=0xdc4f6c8) at
/home/lanyi/FairSoft/FairSoft-may16p1/tools/root/core/cont/src/TCollecti on.cxx:590
#16 0xb74edf73 in TList::Delete (this=0x8e31680, option=0xb75c6b03 "") at

/home/lanyi/FairSoft/FairSoft-may16p1/tools/root/core/cont/src/TList.cxx :461
#17 0xb739eab5 in TROOT::EndOfProcessCleanups (this=0xb76df440
<ROOT::Internal::GetROOT1()::alloc>) at
/home/lanyi/FairSoft/FairSoft-may16p1/tools/root/core/base/src/TROOT.cxx :1112
#18 0xb758f4d4 in TUnixSystem::Exit (this=0x8e21698, code=0, mode=true) at
/home/lanyi/FairSoft/FairSoft-may16p1/tools/root/core/unix/src/TUnixSyst em.cxx:2153
#19 0xb74448ee in TApplication::Terminate (this=0x8e52cf0, status=0) at
/home/lanyi/FairSoft/FairSoft-may16p1/tools/root/core/base/src/TApplicat ion.cxx:1227
#20 0xb7720eca in TRint::Terminate (this=0x8e52cf0, status=0) at
/home/lanyi/FairSoft/FairSoft-may16p1/tools/root/core/rint/src/TRint.cxx :694
#21 0xb7443297 in TApplication::ProcessLine (this=0x8e52cf0, line=0xbfefe211 ".q",
sync=false, err=0xbfefe184) at
/home/lanyi/FairSoft/FairSoft-may16p1/tools/root/core/base/src/TApplicat ion.cxx:877
#22 0xb772124d in TRint::ProcessLineNr (this=0x8e52cf0, filestem=0xb772ebef
"ROOT_prompt_", line=0xbfefe211 ".q", error=0xbfefe184) at
/home/lanyi/FairSoft/FairSoft-may16p1/tools/root/core/rint/src/TRint.cxx :764
#23 0xb7720a0b in TRint::HandleTermInput (this=0x8e52cf0) at
/home/lanyi/FairSoft/FairSoft-may16p1/tools/root/core/rint/src/TRint.cxx :610
#24 0xb771e439 in TTermInputHandler::Notify (this=0x942f3d0) at
/home/lanyi/FairSoft/FairSoft-may16p1/tools/root/core/rint/src/TRint.cxx :132
#25 0xb77222b6 in TTermInputHandler::ReadNotify (this=0x942f3d0) at
/home/lanyi/FairSoft/FairSoft-may16p1/tools/root/core/rint/src/TRint.cxx :124
#26 0xb758d703 in TUnixSystem::CheckDescriptors (this=0x8e21698) at
/home/lanyi/FairSoft/FairSoft-may16p1/tools/root/core/unix/src/TUnixSyst em.cxx:1321
#27 0xb758c9f3 in TUnixSystem::DispatchOneEvent (this=0x8e21698, pendingOnly=false) at
/home/lanyi/FairSoft/FairSoft-may16p1/tools/root/core/unix/src/TUnixSyst em.cxx:1076
#28 0xb74aa6fd in TSystem::InnerLoop (this=0x8e21698) at
/home/lanyi/FairSoft/FairSoft-may16p1/tools/root/core/base/src/TSystem.c xx:408
#29 0xb74aa4b5 in TSystem::Run (this=0x8e21698) at
/home/lanyi/FairSoft/FairSoft-may16p1/tools/root/core/base/src/TSystem.c xx:358
#30 0xb744466f in TApplication::Run (this=0x8e52cf0, retrn=false) at
/home/lanyi/FairSoft/FairSoft-may16p1/tools/root/core/base/src/TApplicat ion.cxx:1153
#31 0xb771fcff in TRint::Run (this=0x8e52cf0, retrn=false) at
/home/lanyi/FairSoft/FairSoft-may16p1/tools/root/core/rint/src/TRint.cxx :463
#32 0x08048f86 in main (argc=1, argv=0xbff005e4) at
/home/lanyi/FairSoft/FairSoft-may16p1/tools/root/main/src/rmain.cxx:30
==========

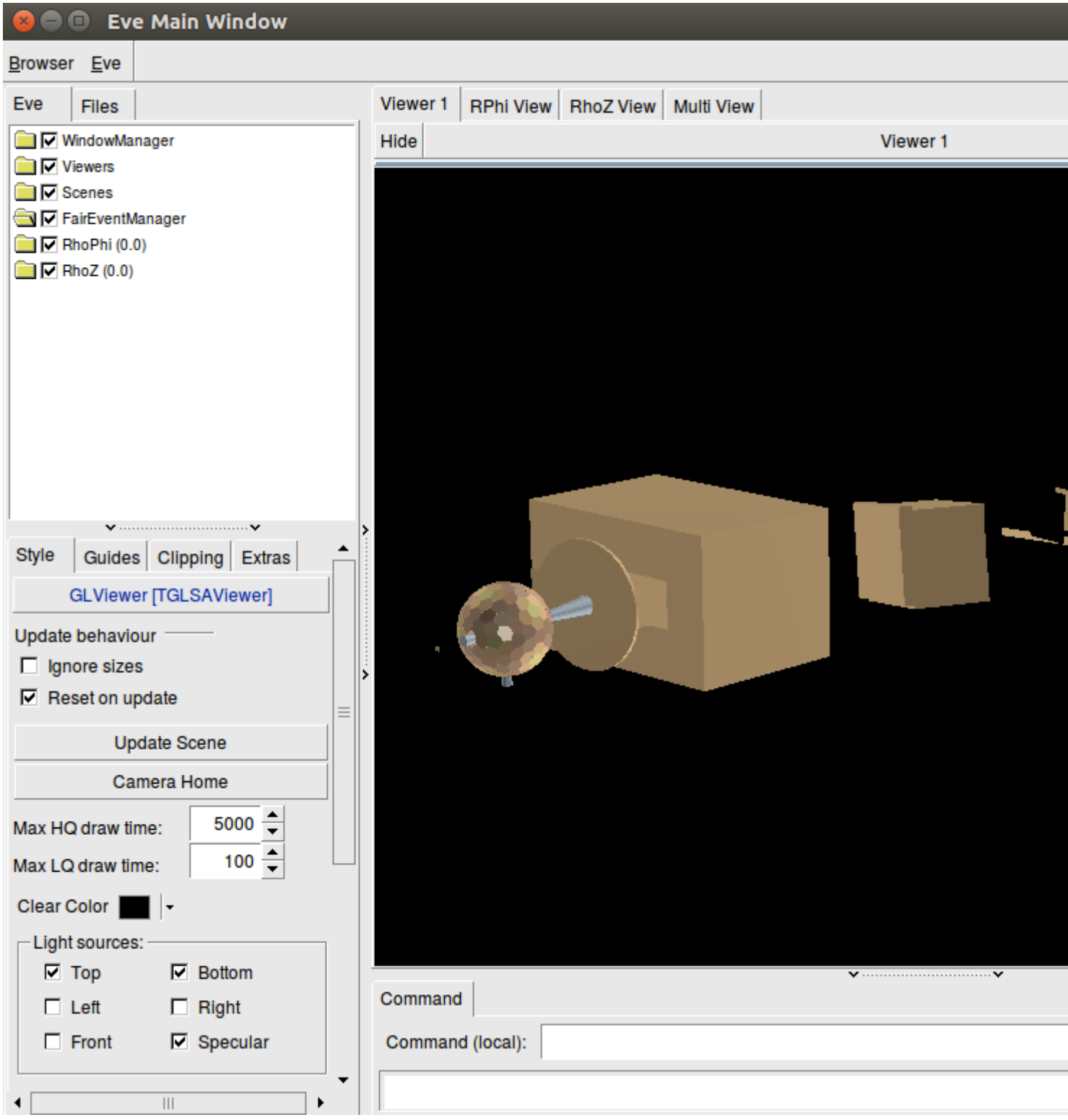
The lines below might hint at the cause of the crash.
You may get help by asking at the ROOT forum http://root.cern.ch/forum.
Only if you are really convinced it is a bug in ROOT then please submit a
report at http://root.cern.ch/bugs. Please post the ENTIRE stack trace
from above as an attachment in addition to anything else
that might help us fixing this issue.
==========
#11 0x0dc7b8a0 in ?? ()
#12 0xb74f271c in TObjArray::Delete (this=0xdc5e580, opt=0xa37856c1 "") at
/home/lanyi/FairSoft/FairSoft-may16p1/tools/root/core/cont/src/TObjArray .cxx:355
#13 0xa36ce649 in TGeoManager::~TGeoManager (this=0xdc4f6c8, __in_chrg=<optimized
out>) at /home/lanyi/FairSoft/FairSoft-may16p1/tools/root/geom/geom/src/TGeoManag
er.cxx:673

#14 0xa36ceaab in TGeoManager::~TGeoManager (this=0xdc4f6c8, __in_chrg=<optimized out>) at /home/lanyi/FairSoft/FairSoft-may16p1/tools/root/geom/geom/src/TGeoManager.cxx:691
#15 0xb74e86de in TCollection::GarbageCollect (obj=0xdc4f6c8) at /home/lanyi/FairSoft/FairSoft-may16p1/tools/root/core/cont/src/TCollection.cxx:590
#16 0xb74edf73 in TList::Delete (this=0x8e31680, option=0xb75c6b03 "") at /home/lanyi/FairSoft/FairSoft-may16p1/tools/root/core/cont/src/TList.cxx :461
#17 0xb739eab5 in TROOT::EndOfProcessCleanups (this=0xb76df440 <ROOT::Internal::GetROOT1()::alloc>) at /home/lanyi/FairSoft/FairSoft-may16p1/tools/root/core/base/src/TROOT.cxx :1112
#18 0xb758f4d4 in TUnixSystem::Exit (this=0x8e21698, code=0, mode=true) at /home/lanyi/FairSoft/FairSoft-may16p1/tools/root/core/unix/src/TUnixSystem.cxx:2153
#19 0xb74448ee in TApplication::Terminate (this=0x8e52cf0, status=0) at /home/lanyi/FairSoft/FairSoft-may16p1/tools/root/core/base/src/TApplication.cxx:1227
#20 0xb7720eca in TRint::Terminate (this=0x8e52cf0, status=0) at /home/lanyi/FairSoft/FairSoft-may16p1/tools/root/core/rint/src/TRint.cxx :694

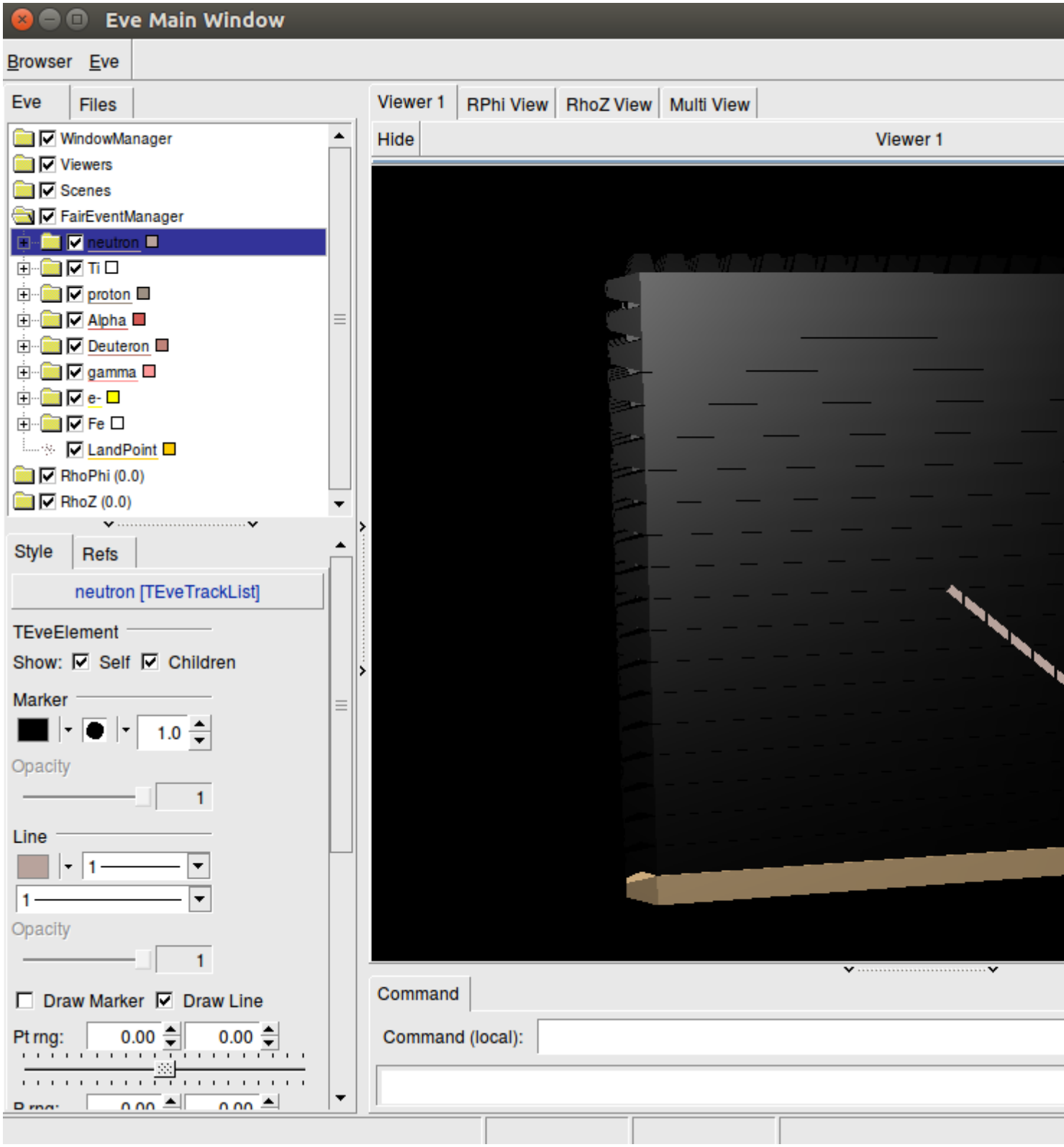
Best regards,
Lányi Zsombor

File Attachments

1) r3b.png, downloaded 1083 times



2) land.png, downloaded 1169 times



Subject: Re: Event display weird behaviour
Posted by Dmytro Kresan on Fri, 17 Mar 2017 10:23:55 GMT
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Hi Lanyi,

The problem is that we do not set the color value in the geometry, but we delegate this to be done automatically by the transport code. And Geant4 does it in this weird way. Try to use Geant3 in your r3bsim.C macro, it will be fine. Agree, inconvenient and need to be fixed.

Concerning the crash - known feature one some platforms. The best is to exit root with .q instead of directly closing the window. If the crash remains also with .q, then we have to look why.

Best regards,
Dima

Subject: Re: Event display weird behaviour
Posted by lanyizsombor on Fri, 17 Mar 2017 10:42:01 GMT
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Okay, I see that. I ran the simulation with Geant3, and the colors are okay now, but isn't it possible to "look inside" the detector? Because I have a neutron track, which continues at the opposite side of LAND, but I couldn't see the interactions in it. By the way, the crash problem is solved with exiting .q command.

Best regards,
Zsombor

Subject: Re: Event display weird behaviour
Posted by Dmytro Kresan on Fri, 17 Mar 2017 10:48:22 GMT
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You can make a detector transparent. Got to "scenes" -> geometry scene -> cave -> the detector -> needed volume and in the tab below, next to the color, you can enter a numerical value for the transparency (between 0 and 100). Works per material, for all volumes with this material.

Best regards,
Dima
