

Subject: Segfault in PndMvdStripClusterBuilder  
Posted by [Ralf Kliemt](#) on Mon, 25 Jan 2010 09:52:33 GMT  
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Hi everybody,

I get a quite evil segfault in my code which did not appear last year. Maybe someone more experienced with stl can help here.

I run the 3 "runMvd...C" macros from pandaroot/macros/mvd. on the third I get the following messages from gdb. Note that I checked all variables with a cout in the lines before.

Quote: **\*\*Sarting PndMvdStripClusterTask::Exec()\*\***  
**PndMvdStripClusterBuilder::AddDigi():** Adding a Digi with name  
 1\_1/40\_0/66\_1/65\_1/63\_1/62\_6/61\_1/60\_1/57\_1/56\_1/  
 time 0, number 355, side 0 forom point 0

Program received signal EXC\_BAD\_ACCESS, Could not access memory.  
Reason: 13 at address: 0x0000000000000000  
0x00007fff80509a24 in std::string::compare ()

## Toggle Spoiler

```
(gdb) bt
```

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#0 0x000007ff80509a24 in std::string::compare ()
#1 0x000000001000ddd6f in std::operator< <char, std::char_traits<char>, std::allocator<char>
> (__lhs=@0x100007d20, __rhs=@0x7fff5fbd88d0) at basic_string.h:2190
#2 0x000000001000ddd95 in std::less<std::string>::operator() (this=0x10c055ad8,
__x=@0x100007d20, __y=@0x7fff5fbd88d0) at stl_function.h:227
#3 0x000000001073f6186 in std::_Rb_tree<std::string, std::pair<std::string const,
std::map<SensorSide, std::map<int, std::map<int, int, std::less<int>, std::allocator<std::pair<int
const, int> > >, std::less<int>, std::allocator<std::pair<int const, std::map<int, int, std::less<int>,
std::allocator<std::pair<int const, int> > > > >, std::less<SensorSide>,
std::allocator<std::pair<SensorSide const, std::map<int, std::map<int, int, std::less<int>,
std::allocator<std::pair<int const, int> > >, std::less<int>, std::allocator<std::pair<int const,
std::map<int, int, std::less<int>, std::allocator<std::pair<int const, int> > > > > > > >,
std::_Select1st<std::pair<std::string const, std::map<SensorSide, std::map<int, std::map<int,
int, std::less<int>, std::allocator<std::pair<int const, int> > >, std::less<int>,
std::allocator<std::pair<int const, std::map<int, int, std::less<int>, std::allocator<std::pair<int
const, int> > > > >, std::less<SensorSide>, std::allocator<std::pair<SensorSide const,
std::map<int, std::map<int, int, std::less<int>, std::allocator<std::pair<int const, int> > >,
std::less<int>, std::allocator<std::pair<int const, std::map<int, int, std::less<int>,
std::allocator<std::pair<int const, int> > > > > > > > >, std::less<std::string>,
std::allocator<std::pair<std::string const, std::map<SensorSide, std::map<int, std::map<int, int,
std::less<int>, std::allocator<std::pair<int const, int> > >, std::less<int>,
std::allocator<std::pair<int const, std::map<int, int, std::less<int>, std::allocator<std::pair<int
const, int> > > > >, std::less<SensorSide>, std::allocator<std::pair<SensorSide const,
std::map<int, std::map<int, int, std::less<int>, std::allocator<std::pair<int const, int> > >,
std::less<int>, std::allocator<std::pair<int const, std::map<int, int, std::less<int>,
std::allocator<std::pair<int const, int> > > > > > > > >::lower_bound (this=0x10c055ad8,
__k=@0x7fff5fbd88d0) at stl_tree.h:1150
#4 0x000000001073f61e9 in std::map<std::string, std::map<SensorSide, std::map<int,
std::map<int, int, std::less<int>, std::allocator<std::pair<int const, int> > >, std::less<int>,
std::allocator<std::pair<int const, std::map<int, int, std::less<int>, std::allocator<std::pair<int
```

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const, int> > > > >, std::less<SensorSide>, std::allocator<std::pair<SensorSide const,
std::map<int, std::map<int, int, std::less<int>, std::allocator<std::pair<int const, int> > >,
std::less<int>, std::allocator<std::pair<int const, std::map<int, int, std::less<int>,
std::allocator<std::pair<int const, int> > > > > > > >, std::less<std::string>,
std::allocator<std::pair<std::string const, std::map<SensorSide, std::map<int, std::map<int, int,
std::less<int>, std::allocator<std::pair<int const, int> > >, std::less<int>,
std::allocator<std::pair<int const, std::map<int, int, std::less<int>, std::allocator<std::pair<int
const, int> > > > >, std::less<SensorSide>, std::allocator<std::pair<SensorSide const,
std::map<int, std::map<int, int, std::less<int>, std::allocator<std::pair<int const, int> > >,
std::less<int>, std::allocator<std::pair<int const, std::map<int, int, std::less<int>,
std::allocator<std::pair<int const, int> > > > > > > > > >::lower_bound (this=<value
temporarily unavailable, due to optimizations>, __x=<value temporarily unavailable, due to
optimizations>) at stl_map.h:540
#5 0x00000001073f908e in std::map<std::string, std::map<SensorSide, std::map<int,
std::map<int, int, std::less<int>, std::allocator<std::pair<int const, int> > >, std::less<int>,
std::allocator<std::pair<int const, std::map<int, int, std::less<int>, std::allocator<std::pair<int
const, int> > > > >, std::less<SensorSide>, std::allocator<std::pair<SensorSide const,
std::map<int, std::map<int, int, std::less<int>, std::allocator<std::pair<int const, int> > >,
std::less<int>, std::allocator<std::pair<int const, std::map<int, int, std::less<int>,
std::allocator<std::pair<int const, int> > > > > > > >, std::less<std::string>,
std::allocator<std::pair<std::string const, std::map<SensorSide, std::map<int, std::map<int, int,
std::less<int>, std::allocator<std::pair<int const, int> > >, std::less<int>,
std::allocator<std::pair<int const, std::map<int, int, std::less<int>, std::allocator<std::pair<int
const, int> > > > >, std::less<SensorSide>, std::allocator<std::pair<SensorSide const,
std::map<int, std::map<int, int, std::less<int>, std::allocator<std::pair<int const, int> > >,
std::less<int>, std::allocator<std::pair<int const, std::map<int, int, std::less<int>,
std::allocator<std::pair<int const, int> > > > > > > > > >::operator[] (this=0x10c055ad8,
__k=@0x7fff5fbd88d0) at stl_map.h:336
#6 0x00000001073f4d77 in PndMvdStripClusterBuilder::AddDigi (this=<value temporarily
unavailable, due to optimizations>, detName=@0x7fff5fbd88d0, side=kTOP, timestamp=0,
strip=355, iPoint=0) at
/Users/ralfk/Panda/pandaroot/mvd/MvdReco/PndMvdStripClusterBuilder.cxx:4 2
#7 0x00000001073fe811 in PndMvdStripClusterTask::Exec (this=0x10c055ae0, opt=<value
temporarily unavailable, due to optimizations>) at
/Users/ralfk/Panda/pandaroot/mvd/MvdReco/PndMvdStripClusterTask.cxx:206
#8 0x000000010008e67f in TTask::ExecuteTasks (this=0x109946c30, option=0x10598e028
"") at core/base/src/TTask.cxx:298
#9 0x000000010008e6a1 in TTask::ExecuteTasks (this=0x109548960, option=0x10598e028
"") at core/base/src/TTask.cxx:300
#10 0x000000010008e497 in TTask::ExecuteTask (this=0x109548960, option=0x10598e028
"") at core/base/src/TTask.cxx:261
#11 0x0000000105920454 in FairRunAna::Run (this=0x7fff5fbd88d0, Ev_start=1606255440,
Ev_end=201677536) at /Users/ralfk/Panda/pandaroot/base/FairRunAna.cxx:268
#12 0x000000010594e2ad in G__FairDict_663_0_5 (result7=0x7fff5fbd8350,
funcname=<value temporarily unavailable, due to optimizations>, libp=0x10c055ae0,
hash=<value temporarily unavailable, due to optimizations>) at
/Users/ralfk/Panda/build/base/FairDict.cxx:9082
#13 0x0000000100a1ef43 in Cint::G__ExceptionWrapper (funcp=0x10594e1b0
<G__FairDict_663_0_5>, result7=0x7fff5fbd4ef0, funcname=0x109545cc0 "\001",
libp=0x7fff5fbda4e0, hash=0) at cint/cint/src/Api.cxx:385
#14 0x0000000100b02793 in G__execute_call (result7=0x7fff5fbd4ef0, libp=0x7fff5fbda4e0,
ifunc=0x109545cc0, ifn=0) at cint/cint/src/newlink.cxx:2332

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#15 0x0000000100b03098 in G__call_cppfunc (result7=0x7fff5fbe4ef0, libp=0x7fff5fbda4e0,
ifunc=0x109545cc0, ifn=0) at cint/cint/src/newlink.cxx:2518
#16 0x0000000100adc09d in G__interpret_func (result7=0x7fff5fbe4ef0,
funcname=0x101834a00 "Run", libp=0x7fff5fbda4e0, hash=309, p_ifunc=0x109545cc0,
funcmatch=1, memfunc_flag=1) at cint/cint/src/ifunc.cxx:5238
#17 0x0000000100ac84bb in G__getfunction (item=0x101833606 "Run(0,nEvents)",
known3=0x7fff5fbe89d8, memfunc_flag=1) at cint/cint/src/func.cxx:2421
#18 0x0000000100bdf9ab in G__getstructmem (store_var_type=112, varname=0x101834200
"mvdmccls", membername=0x101833606 "Run(0,nEvents)", tagname=0x101833e00 "fRun",
known2=0x7fff5fbe89d8, varglobal=0x101152f60, objptr=2) at cint/cint/src/var.cxx:6588
#19 0x0000000100bcebec in G__getvariable (item=0x101833600 "fRun->Run(0,nEvents)",
known=0x7fff5fbe89d8, varglobal=0x101152f60, varlocal=0x0) at cint/cint/src/var.cxx:5220
#20 0x0000000100a8db33 in G__getitem (item=0x101833600 "fRun->Run(0,nEvents)") at
cint/cint/src/expr.cxx:1882
#21 0x0000000100aa40c0 in G__getexpr (expression=0x101802600 "fRun->Run(0,nEvents)")
at cint/cint/src/expr.cxx:1464
#22 0x0000000100b382e6 in G__exec_function (statement=@0x7fff5fbeb780,
pc=0x7fff5fbeb79c, piout=0x7fff5fbeb798, plargestep=0x7fff5fbeb790, presult=0x7fff5fbeb6d0)
at cint/cint/src/parse.cxx:643
#23 0x0000000100b40f85 in G__exec_statement (mparen=0x7fff5fbf8314) at
cint/cint/src/parse.cxx:7083
#24 0x0000000100a72cf3 in G__exec_tempfile_core (file=0x101801600
"/Users/ralfk/Panda/pandaroot/macro/mvd/./runMvdReco.C", fp=0x0) at
cint/cint/src/debug.cxx:250
#25 0x0000000100a7474a in G__exec_tempfile (file=0x101801600
"/Users/ralfk/Panda/pandaroot/macro/mvd/./runMvdReco.C") at cint/cint/src/debug.cxx:798
#26 0x0000000100b56db0 in G__process_cmd (line=0x1017efda8 ".X
/Users/ralfk/Panda/fairsoft/tools/root/etc/plugins/TFile/P110_THDFSFile. C ",
prompt=0x10170f408 "", more=0x10170f400, err=0x7fff5fbf9b8c, rslt=0x7fff5fbf9b20) at
cint/cint/src/pause.cxx:3125
#27 0x0000000100104422 in TCint::ProcessLine (this=0x10170f3d0, line=0x1017efda8 ".X
/Users/ralfk/Panda/fairsoft/tools/root/etc/plugins/TFile/P110_THDFSFile. C ",
error=0x7fff5fbfcae4) at core/meta/src/TCint.cxx:419
#28 0x00000001001048d4 in TCint::ProcessLineSynch (this=0x10170f3d0, line=0x1017efda8
".X /Users/ralfk/Panda/fairsoft/tools/root/etc/plugins/TFile/P110_THDFSFile. C ",
error=0x7fff5fbfcae4) at core/meta/src/TCint.cxx:486
#29 0x000000010000bba3 in TApplication::ExecuteFile (file=0x7fff5fbfaa93 "runMvdReco.C",
error=0x7fff5fbfcae4, keep=false) at core/base/src/TApplication.cxx:976
#30 0x000000010000bd12 in TApplication::ProcessFile (this=0x1017ee4f0, file=0x7fff5fbfaa93
"runMvdReco.C", error=0x7fff5fbfcae4, keep=false) at core/base/src/TApplication.cxx:852
#31 0x000000010000b2b6 in TApplication::ProcessLine (this=0x1017ee4f0,
line=0x7fff5fbfaa90 ".x runMvdReco.C", sync=false, err=0x7fff5fbfcae4) at
core/base/src/TApplication.cxx:825
#32 0x0000000101586d73 in TRint::Run (this=0x1017ee4f0, retrn=false) at
core/rint/src/TRint.cxx:404
#33 0x000000010000193a in main (argc=1, argv=0x7fff5fbfcb8) at main/src/rmain.cxx:29
(gdb)

```

Thanks for any help here, Ralf.