
Subject: Compilation: "buffer overflow detected"
Posted by [Ralf Kliemt](#) on Fri, 08 May 2009 09:08:48 GMT
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Hello,

Trying to install Pandaroot on an Ubuntu 8.10 system in Torino there are strange problems. Only the Mvd compilation is affected and there only the libMvdReco. The automatic backtracing points to rootcint:

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...

```
[ 45%] Building CXX object mvd/CMakeFiles/Mvd.dir/MvdDAQ/PndMvdConvertApv.o
[ 45%] Building CXX object mvd/CMakeFiles/Mvd.dir/MvdDAQ/PndMvdConvertApvTask.o
[ 45%] Building CXX object mvd/CMakeFiles/Mvd.dir/MvdDict.o
Linking CXX shared library ../lib/libMvd.so
```

```
[ 45%] Built target Mvd
```

```
[ 45%] Generating MvdRecoDict.cxx, MvdRecoDict.h
```

```
*** buffer overflow detected ***: /home/laura/software/Panda/fairsoft/tools/root/bin/rootcint
terminated
```

```
===== Backtrace: =====
```

```
/lib/tls/i686/cmov/libc.so.6(__fortify_fail+0x48)[0x409776d8]
/lib/tls/i686/cmov/libc.so.6[0x40975800]
/lib/tls/i686/cmov/libc.so.6(__strcpy_chk+0x44)[0x40974ad4]
/home/laura/software/Panda/fairsoft/tools/root/lib/libCint.so.5.20(_ZN4C
int12G__ClassInfo9TmplItNameEv+0x5a)[0x40099a5a]
/home/laura/software/Panda/fairsoft/tools/root/bin/rootcint(_ZN4ROOT4RSt
l14DropDefaultArgERKSS+0x50)[0x8070c10]
/home/laura/software/Panda/fairsoft/tools/root/bin/rootcint(_Z20WriteBod
yShowMembersRN4Cint12G__ClassInfoEb+0x27df)[0x80642ef]
/home/laura/software/Panda/fairsoft/tools/root/bin/rootcint(_Z16WriteSho
wMembersRN4Cint12G__ClassInfoEb+0x598)[0x8064ae8]
/home/laura/software/Panda/fairsoft/tools/root/bin/rootcint(_Z14WriteCla
ssCodeRN4Cint12G__ClassInfoEb+0x1c8)[0x806b238]
/home/laura/software/Panda/fairsoft/tools/root/bin/rootcint(main+0x3a31) [0x806ed01]
/lib/tls/i686/cmov/libc.so.6(__libc_start_main+0xe5)[0x40893685]
/home/laura/software/Panda/fairsoft/tools/root/bin/rootcint[0x804efa1]
```

```
===== Memory map: =====
```

```
08048000-0807e000 r-xp 00000000 08:06 393829
/home/laura/software/Panda/fairsoft/tools/root_v5.20.00/bin/rootcint
0807e000-0807f000 r--p 00035000 08:06 393829
/home/laura/software/Panda/fairsoft/tools/root_v5.20.00/bin/rootcint
0807f000-08080000 rw-p 00036000 08:06 393829
/home/laura/software/Panda/fairsoft/tools/root_v5.20.00/bin/rootcint
0877b000-08b6c000 rw-p 0877b000 00:00 0 [heap]
40000000-4001a000 r-xp 00000000 08:03 113803 /lib/ld-2.8.90.so
4001a000-4001b000 r-xp 4001a000 00:00 0 [vdso]
4001b000-4001c000 r--p 0001a000 08:03 113803 /lib/ld-2.8.90.so
4001c000-4001d000 rw-p 0001b000 08:03 113803 /lib/ld-2.8.90.so
4001d000-4001f000 rw-p 4001d000 00:00 0
4001f000-40270000 r-xp 00000000 08:06 409966
/home/laura/software/Panda/fairsoft/tools/root_v5.20.00/lib/libCint.so.5 .20
```

40270000-40271000 ---p 00251000 08:06 409966
 /home/laura/software/Panda/fairsoft/tools/root_v5.20.00/lib/libCint.so.5 .20
 40271000-40273000 r--p 00251000 08:06 409966
 /home/laura/software/Panda/fairsoft/tools/root_v5.20.00/lib/libCint.so.5 .20
 40273000-40276000 rw-p 00253000 08:06 409966
 /home/laura/software/Panda/fairsoft/tools/root_v5.20.00/lib/libCint.so.5 .20
 40276000-40755000 rw-p 40276000 00:00 0
 40755000-40757000 r-xp 00000000 08:03 130903 /lib/tls/i686/cmov/libdl-2.8.90.so
 40757000-40758000 r--p 00001000 08:03 130903 /lib/tls/i686/cmov/libdl-2.8.90.so
 40758000-40759000 rw-p 00002000 08:03 130903 /lib/tls/i686/cmov/libdl-2.8.90.so
 40759000-4083c000 r-xp 00000000 08:03 130935 /usr/lib/libstdc++.so.6.0.10
 4083c000-40840000 r--p 000e3000 08:03 130935 /usr/lib/libstdc++.so.6.0.10
 40840000-40841000 rw-p 000e7000 08:03 130935 /usr/lib/libstdc++.so.6.0.10
 40841000-40848000 rw-p 40841000 00:00 0
 40848000-4086c000 r-xp 00000000 08:03 130904 /lib/tls/i686/cmov/libm-2.8.90.so
 4086c000-4086d000 r--p 00023000 08:03 130904 /lib/tls/i686/cmov/libm-2.8.90.so
 4086d000-4086e000 rw-p 00024000 08:03 130904 /lib/tls/i686/cmov/libm-2.8.90.so
 4086e000-4087b000 r-xp 00000000 08:03 113812 /lib/libgcc_s.so.1
 4087b000-4087c000 r--p 0000c000 08:03 113812 /lib/libgcc_s.so.1
 4087c000-4087d000 rw-p 0000d000 08:03 113812 /lib/libgcc_s.so.1
 4087d000-409d5000 r-xp 00000000 08:03 130898 /lib/tls/i686/cmov/libc-2.8.90.so
 409d5000-409d7000 r--p 00158000 08:03 130898 /lib/tls/i686/cmov/libc-2.8.90.so
 409d7000-409d8000 rw-p 0015a000 08:03 130898 /lib/tls/i686/cmov/libc-2.8.90.so
 409d8000-409dc000 rw-p 409d8000 00:00 0
 409dc000-409ea000 r-xp 00000000 08:06 2720107
 /home/laura/software/Panda/fairsoft/tools/root_v5.20.00/cint/cint/includ e/stdfunc.so.5.20
 409ea000-409eb000 r--p 0000d000 08:06 2720107
 /home/laura/software/Panda/fairsoft/tools/root_v5.20.00/cint/cint/includ e/stdfunc.so.5.20
 409eb000-409ec000 rw-p 0000e000 08:06 2720107
 /home/laura/software/Panda/fairsoft/tools/root_v5.20.00/cint/cint/includ e/stdfunc.so.5.20
 409ec000-40a08000 rw-p 409ec000 00:00 0
 40a08000-40ad9000 r-xp 00000000 08:06 2703531
 /home/laura/software/Panda/fairsoft/tools/root_v5.20.00/cint/cint/stl/ma p.so.5.20
 40ad9000-40ada000 r--p 000d0000 08:06 2703531
 /home/laura/software/Panda/fairsoft/tools/root_v5.20.00/cint/cint/stl/ma p.so.5.20
 40ada000-40add000 rw-p 000d1000 08:06 2703531
 /home/laura/software/Panda/fairsoft/tools/root_v5.20.00/cint/cint/stl/ma p.so.5.20
 40add000-40bcc000 r-xp 00000000 08:06 2703534
 /home/laura/software/Panda/fairsoft/tools/root_v5.20.00/cint/cint/stl/ma p2.so.5.20
 40bcc000-40bcd000 r--p 000ee000 08:06 2703534
 /home/laura/software/Panda/fairsoft/tools/root_v5.20.00/cint/cint/stl/ma p2.so.5.20
 40bcd000-40bd0000 rw-p 000ef000 08:06 2703534
 /home/laura/software/Panda/fairsoft/tools/root_v5.20.00/cint/cint/stl/ma p2.so.5.20
 40bd0000-40bd8000 rw-p 40bd0000 00:00 0
 40bd8000-40c7e000 r-xp 00000000 08:06 2703540
 /home/laura/software/Panda/fairsoft/tools/root_v5.20.00/cint/cint/stl/mu ltimap.so.5.20
 40c7e000-40c7f000 r--p 000a5000 08:06 2703540
 /home/laura/software/Panda/fairsoft/tools/root_v5.20.00/cint/cint/stl/mu ltimap.so.5.20
 40c7f000-40c81000 rw-p 000a6000 08:06 2703540
 /home/laura/software/Panda/fairsoft/tools/root_v5.20.00/cint/cint/stl/mu ltimap.so.5.20
 40c81000-40d33000 r-xp 00000000 08:06 2703543
 /home/laura/software/Panda/fairsoft/tools/root_v5.20.00/cint/cint/stl/mu ltimap2.so.5.20

```
40d33000-40d34000 r--p 000b1000 08:06 2703543
/home/laura/software/Panda/fairsoft/tools/root_v5.20.00/cint/cint/stl/mu ltimap2.so.5.20
40d34000-40d36000 rw-p 000b2000 08:06 2703543
/home/laura/software/Panda/fairsoft/tools/root_v5.20.00/cint/cint/stl/mu ltimap2.so.5.20
40d36000-40d37000 rw-p 40d36000 00:00 0
40d37000-40ebc000 r-xp 00000000 08:06 2703521
/home/laura/software/Panda/fairsoft/tools/root_v5.20.00/cint/cint/stl/ve ctor.so.5.20
40ebc000-40ebd000 r--p 00184000 08:06 2703521
/home/laura/software/Panda/fairsoft/tools/root_v5.20.00/cint/cint/stl/ve ctor.so.5.20
40ebd000-40ec1000 rw-p 00185000 08:06 2703521
/home/laura/software/Panda/fairsoft/tools/root_v5.20.00/cint/cint/stl/ve ctor.so.5.20
40ec1000-40ecd000 r-xp 00000000 08:06 2703524
/home/laura/software/Panda/fairsoft/tools/root_v5.20.00/cint/cint/stl/ve ctorbool.so.5.20
40ecd000-40ece000 r--p 0000b000 08:06 2703524
/home/laura/software/Panda/fairsoft/tools/root_v5.20.00/cint/cint/stl/ve ctorbool.so.5.20
40ece000-40ecf000 rw-p 0000c000 08:06 2703524
/home/laura/software/Panda/fairsoft/tools/root_v5.20.00/cint/cint/stl/ve ctorbool.so.5.20
40ecf000-40ed1000 rw-p 40ecf000 00:00 0
40ed1000-40ee0000 rw-p 40ed1000 00:00 0
bf833000-bf880000 rw-p bffb3000 00:00 0      [stack]
Aborted
make[2]: *** [mvd/MvdRecoDict.cxx] Error 134
make[1]: *** [mvd/CMakeFiles/MvdReco.dir/all] Error 2
make: *** [all] Error 2
laura@bender:~/software/Panda/build$
0848000 rw-p 40841000 00:00 0
```

To exclude many things this was done with a fresh installation of fairsoft and the trunk version 5454 of pandaroot.

When doing the make command a second time the rest of the project compiles, but the libMvdReco is screwed.

Has anybody of you encountered this "**** buffer overflow detected ****" message before?

Greetings, Ralf.

Subject: Re: Compilation: "buffer overflow detected"
Posted by [Florian Uhlig](#) on Fri, 08 May 2009 09:26:13 GMT
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Hi Ralf

Please have a look into the following discussion on the Root mailing list. Maybe this helps to solve the problem.

<http://root.cern.ch/phpBB2/viewtopic.php?t=8021&postdays=0&postorder=asc&start=0>

Ciao

Florian

Subject: Re: Compilation: "buffer overflow detected"
Posted by [Ralf Kliemt](#) on Fri, 08 May 2009 13:06:25 GMT
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Hi Florian,

Looks like we have too long map variable names for some systems. Here what the root guys did:

"pcanal"Hi,

The problem is most likely the triple!!! nested map:

```
map<unsigned int,map<string,map<unsigned int,short> > *>
```

When CINT explicits the 3rd and 4th argument of the maps, the total size name is more than 512 characters!

To solve the problem you need to #define G__LONGBUF
in G__ci.h (and recompile root).

Cheers,
Philippe.

Well, we're trying that (I'll report the result).

It is right, that the Mvd code has exactly such kind of nested vectors/maps. Unfortunately the file exists 4 times in root.

Ralf.

Subject: Re: Compilation: "buffer overflow detected"
Posted by [Ralf Kliemt](#) on Wed, 03 Jun 2009 06:32:14 GMT
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Hello,

This dirty fix actually works.
Just to inform you.

Ralf.

Subject: Re: Compilation: "buffer overflow detected"
Posted by [Dmitry Khanef](#) on Thu, 04 Jun 2009 09:11:08 GMT
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I tried install pandaroot 5713 on ubuntu 9.04 and I still have the same error.

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[45%] Built target Mvd

[45%] Generating MvdRecoDict.cxx, MvdRecoDict.h

*** buffer overflow detected ***: /home/dkhaneft/programs/fairsoft/tools/root/bin/rootcint terminated

===== Backtrace: =====

/lib/tls/i686/cmov/libc.so.6(__fortify_fail+0x48)[0x40983da8]

/lib/tls/i686/cmov/libc.so.6[0x40981eb0]

/lib/tls/i686/cmov/libc.so.6(__strcpy_chk+0x44)[0x40981184]

/home/dkhaneft/programs/fairsoft/tools/root/lib/libCint.so.5.20(_ZN4Cint12G__ClassInfo9TmplNameEv+0x5a)[0x4009ba5a]

/home/dkhaneft/programs/fairsoft/tools/root/bin/rootcint(_ZN4ROOT4RStl14DropDefaultArgERKSs+0x50)[0x8070c10]

/home/dkhaneft/programs/fairsoft/tools/root/bin/rootcint(_Z20WriteBodyShowMembersRN4Cint12G__ClassInfoEb+0x27df)[0x80642ef]

/home/dkhaneft/programs/fairsoft/tools/root/bin/rootcint(_Z16WriteShowMembersRN4Cint12G__ClassInfoEb+0x598)[0x8064ae8]

/home/dkhaneft/programs/fairsoft/tools/root/bin/rootcint(_Z14WriteClassCodeRN4Cint12G__ClassInfoEb+0x1c8)[0x806b238]

/home/dkhaneft/programs/fairsoft/tools/root/bin/rootcint(main+0x3a31)[0x806ed01]

/lib/tls/i686/cmov/libc.so.6(__libc_start_main+0xe5)[0x4089c775]

/home/dkhaneft/programs/fairsoft/tools/root/bin/rootcint[0x804efa1]

===== Memory map: =====

08048000-0807e000 r-xp 00000000 08:0a 1476686

/home/dkhaneft/programs/fairsoft/tools/root_v5.20.00/bin/rootcint

0807e000-0807f000 r--p 00035000 08:0a 1476686

/home/dkhaneft/programs/fairsoft/tools/root_v5.20.00/bin/rootcint

0807f000-08080000 rw-p 00036000 08:0a 1476686

/home/dkhaneft/programs/fairsoft/tools/root_v5.20.00/bin/rootcint

08f53000-09346000 rw-p 08f53000 00:00 0 [heap]

40000000-4001c000 r-xp 00000000 08:09 456844 /lib/ld-2.9.so

4001c000-4001d000 r--p 0001b000 08:09 456844 /lib/ld-2.9.so

4001d000-4001e000 rw-p 0001c000 08:09 456844 /lib/ld-2.9.so

4001e000-4001f000 r-xp 4001e000 00:00 0 [vdso]

4001f000-40021000 rw-p 4001f000 00:00 0

40021000-40272000 r-xp 00000000 08:0a 1476552

/home/dkhaneft/programs/fairsoft/tools/root_v5.20.00/lib/libCint.so.5.20

40272000-40273000 ---p 00251000 08:0a 1476552

```

/home/dkhaneft/programs/fairsoft/tools/root_v5.20.00/lib/libCint.so.5.20

40273000-40275000 r--p 00251000 08:0a 1476552
/home/dkhaneft/programs/fairsoft/tools/root_v5.20.00/lib/libCint.so.5.20

40275000-40278000 rw-p 00253000 08:0a 1476552
/home/dkhaneft/programs/fairsoft/tools/root_v5.20.00/lib/libCint.so.5.20

40278000-4074b000 rw-p 40278000 00:00 0
4074b000-40759000 r-xp 00000000 08:0a 1847650
/home/dkhaneft/programs/fairsoft/tools/root_v5.20.00/cint/cint/include/s tdfunc.so.5.20

40759000-4075a000 r--p 0000d000 08:0a 1847650
/home/dkhaneft/programs/fairsoft/tools/root_v5.20.00/cint/cint/include/s tdfunc.so.5.20

4075a000-4075b000 rw-p 0000e000 08:0a 1847650
/home/dkhaneft/programs/fairsoft/tools/root_v5.20.00/cint/cint/include/s tdfunc.so.5.20

4075b000-4075d000 rw-p 4075b000 00:00 0
4075d000-4075f000 r-xp 00000000 08:09 472738 /lib/tls/i686/cmov/libdl-2.9.so

4075f000-40760000 r--p 00001000 08:09 472738 /lib/tls/i686/cmov/libdl-2.9.so

40760000-40761000 rw-p 00002000 08:09 472738 /lib/tls/i686/cmov/libdl-2.9.so

40761000-40762000 rw-p 40761000 00:00 0
40762000-40846000 r-xp 00000000 08:09 245077 /usr/lib/libstdc++.so.6.0.10

40846000-4084a000 r--p 000e3000 08:09 245077 /usr/lib/libstdc++.so.6.0.10

4084a000-4084b000 rw-p 000e7000 08:09 245077 /usr/lib/libstdc++.so.6.0.10

4084b000-40851000 rw-p 4084b000 00:00 0
40851000-40875000 r-xp 00000000 08:09 472740 /lib/tls/i686/cmov/libm-2.9.so

40875000-40876000 r--p 00023000 08:09 472740 /lib/tls/i686/cmov/libm-2.9.so

40876000-40877000 rw-p 00024000 08:09 472740 /lib/tls/i686/cmov/libm-2.9.so

40877000-40884000 r-xp 00000000 08:09 456187 /lib/libgcc_s.so.1

40884000-40885000 r--p 0000c000 08:09 456187 /lib/libgcc_s.so.1

40885000-40886000 rw-p 0000d000 08:09 456187 /lib/libgcc_s.so.1

40886000-409e2000 r-xp 00000000 08:09 472732 /lib/tls/i686/cmov/libc-2.9.so

409e2000-409e3000 ---p 0015c000 08:09 472732 /lib/tls/i686/cmov/libc-2.9.so

409e3000-409e5000 r--p 0015c000 08:09 472732 /lib/tls/i686/cmov/libc-2.9.so

409e5000-409e6000 rw-p 0015e000 08:09 472732 /lib/tls/i686/cmov/libc-2.9.so

```

```
409e6000-409ff000 rw-p 409e6000 00:00 0
409ff000-40b84000 r-xp 00000000 08:0a 1847601
/home/dkhaneft/programs/fairsoft/tools/root_v5.20.00/cint/cint/stl/vecto r.so.5.20

40b84000-40b85000 r--p 00184000 08:0a 1847601
/home/dkhaneft/programs/fairsoft/tools/root_v5.20.00/cint/cint/stl/vecto r.so.5.20
40b85000-40b89000 rw-p 00185000 08:0a 1847601
/home/dkhaneft/programs/fairsoft/tools/root_v5.20.00/cint/cint/stl/vecto r.so.5.20
40b89000-40b95000 r-xp 00000000 08:0a 1847604
/home/dkhaneft/programs/fairsoft/tools/root_v5.20.00/cint/cint/stl/vecto rbool.so.5.20
40b95000-40b96000 r--p 0000b000 08:0a 1847604
/home/dkhaneft/programs/fairsoft/tools/root_v5.20.00/cint/cint/stl/vecto rbool.so.5.20
40b96000-40b97000 rw-p 0000c000 08:0a 1847604
/home/dkhaneft/programs/fairsoft/tools/root_v5.20.00/cint/cint/stl/vecto rbool.so.5.20
40b97000-40bbd000 rw-p 40b97000 00:00 0
40bbd000-40c8e000 r-xp 00000000 08:0a 1847611
/home/dkhaneft/programs/fairsoft/tools/root_v5.20.00/cint/cint/stl/map.s o.5.20
40c8e000-40c8f000 r--p 000d0000 08:0a 1847611
/home/dkhaneft/programs/fairsoft/tools/root_v5.20.00/cint/cint/stl/map.s o.5.20
40c8f000-40c92000 rw-p 000d1000 08:0a 1847611
/home/dkhaneft/programs/fairsoft/tools/root_v5.20.00/cint/cint/stl/map.s o.5.20
40c92000-40d81000 r-xp 00000000 08:0a 1847616
/home/dkhaneft/programs/fairsoft/tools/root_v5.20.00/cint/cint/stl/map2. so.5.20
40d81000-40d82000 r--p 000ee000 08:0a 1847616
/home/dkhaneft/programs/fairsoft/tools/root_v5.20.00/cint/cint/stl/map2. so.5.20
40d82000-40d85000 rw-p 000ef000 08:0a 1847616
/home/dkhaneft/programs/fairsoft/tools/root_v5.20.00/cint/cint/stl/map2. so.5.20
40d85000-40d89000 rw-p 40d85000 00:00 0
40d89000-40e2f000 r-xp 00000000 08:0a 1847620
/home/dkhaneft/programs/fairsoft/tools/root_v5.20.00/cint/cint/stl/multi map.so.5.20
40e2f000-40e30000 r--p 000a5000 08:0a 1847620
/home/dkhaneft/programs/fairsoft/tools/root_v5.20.00/cint/cint/stl/multi map.so.5.20
40e30000-40e32000 rw-p 000a6000 08:0Aborted
make[2]: *** [mvd/MvdRecoDict.cxx] Error 134
make[1]: *** [mvd/CMakeFiles/MvdReco.dir/all] Error 2
make: *** [all] Error 2
```

Subject: Re: Compilation: "buffer overflow detected"
Posted by [Ralf Kliemt](#) on Thu, 04 Jun 2009 09:32:48 GMT
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Hi Dmitry,

This bug is not fixed inside pandaroot. You need to search in fairsoft/tools/root for all 4 files named G__ci.h and add the line
#define G__LONGBUF
there. Then recompile root e.g. by doing
fairsoft> ./configure
again (this time it's not so long).

Kind regards, Ralf.
