

## CrystaX NDK - Bug #1087

### [mips][gcc-5][windows] ICE when building C++ code

10/05/2015 05:16 PM - Dmitry Moskalchuk

<b>Status:</b>	Open	<b>Start date:</b>	10/05/2015
<b>Priority:</b>	High	<b>Due date:</b>	
<b>Assignee:</b>	Dmitry Moskalchuk	<b>% Done:</b>	0%
<b>Category:</b>	toolchain	<b>Estimated time:</b>	0.00 hour
<b>Target version:</b>	11.0.0	<b>Android version:</b>	
<b>CPU Architecture:</b>	mips	<b>CrystaX Version:</b>	10.3.1
<b>Host OS:</b>	Windows		
<b>Toolchain:</b>	gcc-5		

#### Description

```
C:/tmp/crystax-ndk/ndk/toolchains/mipsel-linux-android-5/prebuilt/windows/bin/mipsel-linux-android-g++ -MMD -MP -MF ./obj/local/mips/objs/stlport_shared/src/dll_main.o.d -fpic -fno-strict-aliasing -finline-functions -ffunction-sections -funwind-tables -fmessage-length=0 -fno-inline-functions-called-once -fgcse-after-reload -frerun-cse-after-loop -frename-registers -no-canonical-prefixes -fno-exceptions -fno-rtti -O2 -g -DNDEBUG -fomit-frame-pointer -funswitch-loops -finline-limit=300 -IC:/tmp/crystax-ndk/ndk/sources/cxx-stl/stlport/stlport -IC:/tmp/crystax-ndk/ndk/sources/cxx-stl/gabi++/include -IC:/tmp/crystax-ndk/ndk/sources/cxx-stl/stlport -DANDROID -D_GNU_SOURCE -Wa,--noexecstack -Wformat -Werror=format-security -fuse-cxa-atexit -frtti -fexceptions -std=gnu++11 -c -IC:/tmp/crystax-ndk/ndk/sources/crystax/include -IC:/tmp/crystax-ndk/ndk/platforms/android-9/arch-mips/usr/include C:/tmp/crystax-ndk/ndk/sources/cxx-stl/stlport/src/dll_main.cpp -o ./obj/local/mips/objs/stlport_shared/src/dll_main.o
```

```
In file included from C:/tmp/crystax-ndk/ndk/sources/cxx-stl/stlport/stlport/stl/_string.h:78:0,
                 from C:/tmp/crystax-ndk/ndk/sources/cxx-stl/stlport/stlport/string:29,
                 from C:/tmp/crystax-ndk/ndk/sources/cxx-stl/stlport/src/dll_main.cpp:49:
C:/tmp/crystax-ndk/ndk/sources/cxx-stl/stlport/stlport/stl/_string_base.h: In member function 'void std::priv::_String_base<_Tp, _Alloc>::_M_deallocate_block() [with _Tp = char; _Alloc = std::allocator<char>]':
C:/tmp/crystax-ndk/ndk/sources/cxx-stl/stlport/stlport/stl/_string_base.h:102:3: internal compiler error: Segmentation fault
    }
    ^
```

Please submit a full bug report,  
with preprocessed source if appropriate.  
See <<https://tracker.crystax.net/projects/ndk>> for instructions.

#### History

##### #1 - 11/08/2015 12:12 AM - Dmitry Moskalchuk

- Blocks Task #1049: Make gcc-5 default toolchain added

##### #2 - 11/16/2015 05:23 PM - Dmitry Moskalchuk

- Target version changed from 10.3.0 to 11.0.0

##### #3 - 11/18/2015 05:43 PM - Dmitry Moskalchuk

- Target version changed from 11.0.0 to 10.3.0

##### #4 - 12/03/2015 10:35 AM - Dmitry Moskalchuk

- Status changed from Open to In Progress

##### #5 - 12/09/2015 08:08 PM - Dmitry Moskalchuk

- Status changed from In Progress to Open

- Target version changed from 10.3.0 to 11.0.0

This crash happens only when running NDK tests on Window machine through SSH session (Cygwin). When running in typical Windows environment (either in cmd console or in cygwin/mingw shell), it doesn't crash.

It seems like a problem with different environment. It's still the bug of GCC, but obviously it's not so critical due to very specific reproduce case, so moving it to the next (10.4.0) release.

For the record: crash happens somewhere inside gcc's core handling instructions reordering. [This is](#) exact place of crash:

```
FOR_BB_INSNS_REVERSE (bb, insn)
{
    df_insn_info *insn_info = DF_INSN_INFO_GET (insn); //<== here
    df_mw_hardreg *mw;
    int debug_insn;
```

#### #6 - 12/09/2015 08:09 PM - Dmitry Moskalchuk

- Blocks deleted (Task #1049: Make gcc-5 default toolchain)

#### #7 - 12/29/2015 02:02 PM - Dmitry Moskalchuk

- File mips-gcc-bug.tar.xz added

- CrystaX Version set to 10.3.1

Here is clear way to reproduce the bug:

- Download attached archive mips-gcc-bug.tar.xz
- Unpack and copy its content on Windows machine with Cygwin installed
- Edit run.sh to point NDK to proper place
- Run run.sh in Cygwin shell

Several first runs will be successful, but sooner or later it will crash:

```
==== #24
GNU C++11 (GCC) version 5.3 20151204 (mipsel-linux-android)
    compiled by GNU C version 4.8.3, GMP version 6.0.0, MPFR version 3.1.2, MPC version 1.0.3
GGC heuristics: --param ggc-min-expand=100 --param ggc-min-heapsize=131072
GNU C++11 (GCC) version 5.3 20151204 (mipsel-linux-android)
    compiled by GNU C version 4.8.3, GMP version 6.0.0, MPFR version 3.1.2, MPC version 1.0.3
GGC heuristics: --param ggc-min-expand=100 --param ggc-min-heapsize=131072
Compiler executable checksum: 8781bacb02a5a1c91d9cecb60b1329d3
In file included from C:/tmp/crystax-ndk/ndk/sources/cxx-stl/stlport/stlport/stl/_list.h:691:0,
    from C:/tmp/crystax-ndk/ndk/sources/cxx-stl/stlport/stlport/list:36,
    from ../unit/ptrspec_test.cpp:2:
C:/tmp/crystax-ndk/ndk/sources/cxx-stl/stlport/stlport/stl/_list.c: In function 'void std::priv::_S_merge(std:
:list<_Tp, _Alloc>&, std::list<_Tp, _Alloc>&, _StrictWeakOrdering) [with _Tp = const volatile int*; _Alloc = s
td::allocator<const volatile int*>; _StrictWeakOrdering = std::less<const volatile int*>]':
C:/tmp/crystax-ndk/ndk/sources/cxx-stl/stlport/stlport/stl/_list.c:203:1: internal compiler error: Segmentatio
n fault
}
^
```

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with preprocessed source if appropriate.  
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#### #8 - 05/24/2016 03:03 PM - Dmitry Moskalchuk

- Subject changed from [mips][gcc-5][windows] ICE when re-building STLport to [mips][gcc-5][windows] ICE when building C++ code

- Description updated

## Files

mips-gcc-bug.tar.xz	83.5 KB	12/29/2015	Dmitry Moskalchuk
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