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Subject: Crash on Cout with MSC15

Posted by [NilaT](#) on Wed, 20 Jul 2016 14:12:27 GMT

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Hello,

// edit:

For those who don't want to read all the text below:

What changes have to be done to 2014 sources that MT flag will work with MSC15 like newest (2015) sources do???

Thanks

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I formatted my Laptop recently and decided to install the newest version of Upp and MS VS afterwards.

So I installed Upp 2015.2 (Version 9251) and MS Visual Studio Community 2015 (which is free to download).

I work on a Windows 10 Pro N Laptop.

So, after a few tweaks here and there, everything seems to work fine (despite the Win XP incompatibility, but thats okay)

BUT, I discovered one error which drives me nuts...

Cout() doesn't seem to work properly... printf is no problem though.

Sure I could change all Cout() calls to printf but that's not a solution.

The funny thing is, in debug everything works fine, only in optimal the program crashes immediately.

I tried to debug the optimal version in Visual Studio, the error seems to be in:

```
void Stream::Put(const char *s)
```

```
{  
    while (*s) Put(*s++);  
}
```

The error is always the same: (The error is german and I tried to translate it to english as good as I can)

Exception at 0x00AB60C7 (address changes every time) in (Projectname).exe: 0xC0000005:

Access violation at read at position 0x00000004.

But the funniest thing is, that this must be something depending on my includes (it's a rather big project)

Because, I made a new test application, only containing the following code:

```
#include <Core/Core.h>
```

```
using namespace Upp;
```

```
CONSOLE_APP_MAIN
```

```
{  
  Cout() << "\n-----\n";  
  ReadStdIn();  
}
```

and this just works fine, using the SAME sources as the big project.  
The \n----... is also the first line in my other project.

Any suggestions?  
Any help is very appreciated!

I also tried differend compiler flags (GS) and sources (2014, 2015), always the same result...  
Everything works, except my "old" project.

//edit: I narrowed it down to the MT flag... Please just create a new multithreaded console project  
with the content I posted above and try it... It will crash. But why?

//edit2: Okay, only 2014 sources are affected. The newest sources work fine with MT... I'm on it.  
Please keep this thread if other people have the same issue

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Subject: Re: Crash on Cout with MSC15  
Posted by [deep](#) on Wed, 20 Jul 2016 14:34:59 GMT  
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Hi,

In new release "optimal" mode is deprecated.  
Quote:The funny thing is, in debug everything works fine, only in optimal the program crashes  
immediately.

I tried to debug the optimal version in Visual Studio, the error seems to be in:

Check flags for "release" mode.

Or check with "Optimized speed" mode. I faced similar issues with optimal mode.

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Subject: Re: Crash on Cout with MSC15  
Posted by [NilaT](#) on Wed, 20 Jul 2016 14:43:39 GMT  
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Thanks for the quick answer,

as I discovered, it has something to do with MT flag and the changes from 2014 sources to 2015.  
Because the crash only appears in MT with 2014 sources.  
MT on 2015 work fine...

I think there must be a significant difference... But where?!

Must be something about that encoding and converting stuff, right?

-

Which flags do you mean exactly, because there are sooo many different flag and option menus in Upp.

But if you mean the Setup > Build options, I got:

Common options: /bigobj /D\_ATL\_XP\_TARGETING /FS

Debug options: -Od

Debug link options: /STACK:20000000

Optimize for speed: -O2

Optimize for size: -O1

Release link options: same as Debug link options

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Subject: Re: Crash on Cout with MSC15

Posted by [deep](#) on Thu, 21 Jul 2016 05:24:20 GMT

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Hi,

Please check when this gets called first time

```
void Stream::Put(const char *s)
```

pointer points to valid "cstring"

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Subject: Re: Crash on Cout with MSC15

Posted by [NilaT](#) on Thu, 21 Jul 2016 06:25:28 GMT

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Could somebody please confirm the following?

New Console App in latest upp with latest sources, MSC15 on Win 10.

Compile and run in optimal with MT flag!

Code:

```
#include <Core/Core.h>
```

```
using namespace Upp;
```

```
CONSOLE_APP_MAIN
```

```
{  
    CoutUTF8(); // Without this line, works perfect. With this line = crash (same error as with 2014  
    upp sources)  
    Cout() << "\n-----\n";  
    ReadStdIn();  
}
```

And explain me where and why?  
Thanks.

-----

//edit: Because we work with 2014 sources in our project, please forget that 2015 example.  
I tried to apply the changes in CoutStream from 2015 to 2014 sources, because I thought a wrong  
Charset causes the error.

Afterwards I edited the Stream::Put method:

```
void Stream::Put(const char *s)
{
    while (*s)
    {
        Put(*s);
        *s++;
    }
}
```

In debug, Put calls void Put(int c) in Stream.h:

```
void Put(int c)
{
    if(ptr < wrlim)
        *ptr++ = c;
    else
        _Put(c);
}
```

and then calls \_Put, which, in endeffect calls the "new" Put0 which converts the charset.

BUT, in optimal, the error raises in Stream::Put -> Put call.

I debug in Visual Studio, put a Breakpoint on the Put(\*s); call and press F11, but I can't jump into the function...

What the heck...

// edit:

I tried to compile our project with 2015 sources, same result.

Debug runs fine, optimal crashes.

I attach a pick of our project, compiled with 2014 sources and MSC15 in optimal.

## File Attachments

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1) [crash.png](#), downloaded 453 times

```
Stream.h Stream.cpp  
uppsrc_2014 Stream  
406 if(code < 0x80)  
407     Put(code);  
408 else  
409     if(code < 0x800) {  
410         Put(0xc0 | (code >> 6));  
411         Put(0x80 | (code & 0x3f));  
412     }  
413     else  
414         if((code & 0xFF00) == 0xEE00)  
415             Put(code);  
416         else {  
417             Put(0xe0 | (code >> 12));  
418             Put(0x80 | ((code >> 6) & 0x3f));  
419             Put(0x80 | (code & 0x3f));  
420         }  
421     }  
422  
423 void Stream::Put(const char *s)  
424 {  
425     while (*s)  
426     {  
427         Put(*s);  
428         *s++;  
429     }  
430 }  
431  
432 void Stream::Put(int c, int count) {  
433  
434     while(count) {  
435         int n = min(count, (int)(intptr_t)(wrlim - ptr));  
436         if(n > 0) {  
437             memset(ptr, c, n);  
438             ptr += n;  
439             count -= n;  
440         }  
441         else {  
442             Put(c);  
443             count--;  
444         }  
445     }  
446 }
```

F11

Microsoft Visual Studio

 Ausnahmefehler bei 0x0  
Zugriffsverletzung beim

Falls ein Handler für dies  
möglicherweise weiterhi

Bei Auslösen dieses Aus  
[Anhalten und Ausnahme](#)

100 %

Überwachen 1

Name	Wert
*s	10 '\n'

Auto Lokal Überwachen 1