
Subject: Problem with UPP_HEAP and multithread
Posted by [kov_serg](#) on Thu, 08 Oct 2009 08:58:45 GMT
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I have serious problem with Upp memory allocation in multithreads. This problem dissapear if I don't use UPP_HEAP.

If I allocate, reallocate and free memory in different thread, I have strange bugs. If I force Defs.h "flagUSEMALLOC" problem doesn't occure. I think this is some kind of bug with heap monitor.

The simples example to reproduce this bug attached in file test.cpp (with option MT)

If I call th0(1) programm works fine.

But if argument th0(2) or more it will stop debugger in various places with out visible reason.

In real programm it cause unhandled exception when gui terminates or even fail on `vector<>.clear` inside GUI thread `o_0`.

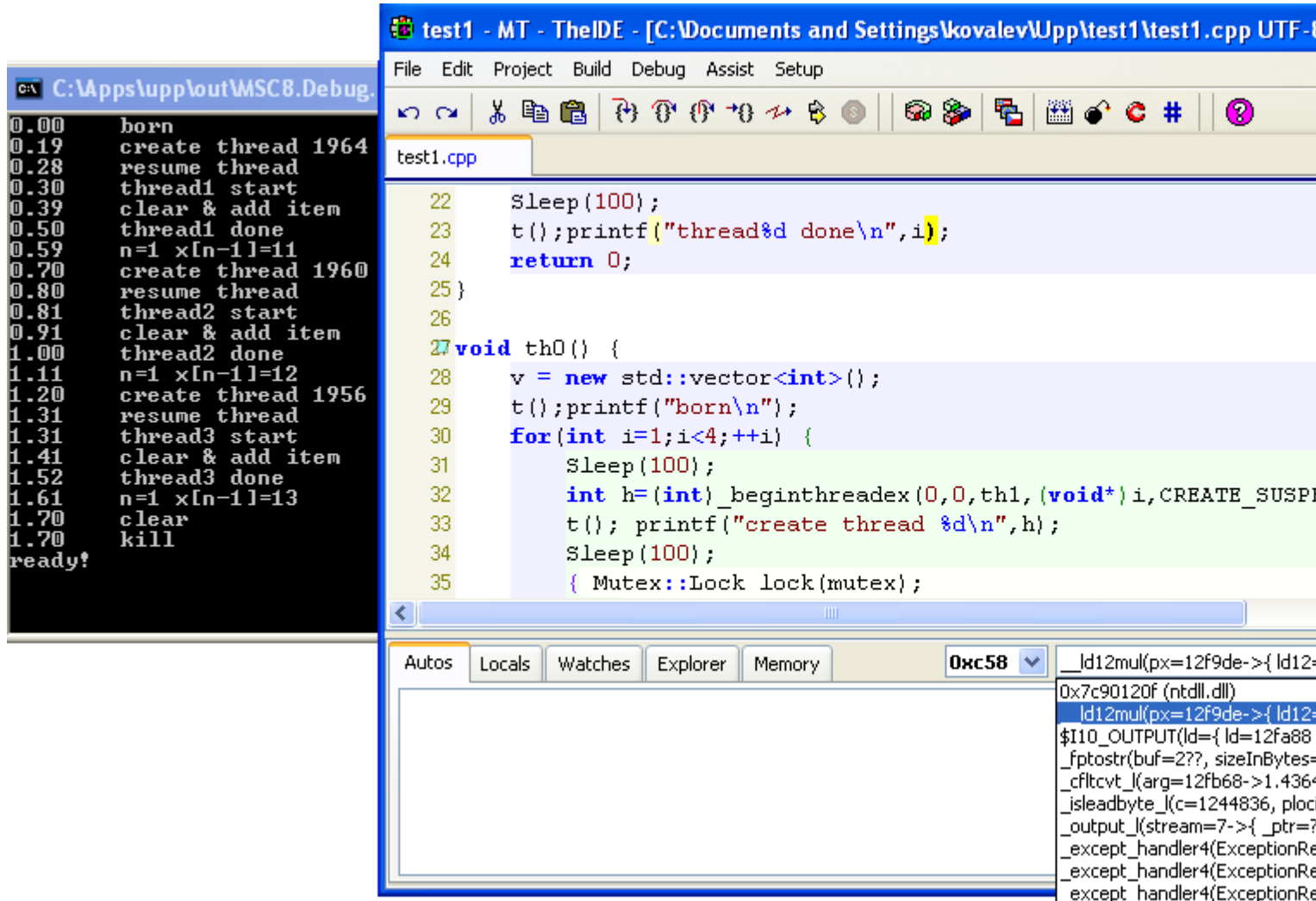
hz1.png -- dubgger stop in unknown place without visible reason. (test.cpp)

hz2.png -- screen shot from other program when this problem occure. (real project) I have exceptions from delete operator. Usually from `vector<>.clear()`. Exception may occure on different delete operators. And behaviour is very unstable.

Upp version: SVN.643

File Attachments

- 1) [test.cpp](#), downloaded 396 times
- 2) [hz1.PNG](#), downloaded 541 times



3) [hz2.PNG](#), downloaded 571 times



heap.cpp

```

43 }
44
45 void Heap::RemoteFree(void *ptr)
46 {
47     LLOG("RemoteFree " << ptr);
48     Mutex::Lock __ (mutex);
49     FreeLink *f = (FreeLink *)ptr;
50     f->next = remote_free;
51     remote_free = f;
52 }
53
54 void Heap::FreeRemoteRaw()
55 {
56     while(remote_free) {

```

Upp::Heap::RemoteFree(ptr=2db0080)

```

Upp::Heap::Free(ptr=2db0080)
Upp::MemoryFree_(ptr=2db0080)
Upp::MemoryFree(ptr=2db0090)
Upp::MemoryFree32(ptr=2db0090)
Upp::String0::LFree()
Upp::String0::Free()
Upp::String0::~~String0()
Upp::AString<Upp::String0>::~~AString()
Upp::Moveable<Upp::String,Upp::AString>
Upp::String::~String()
Upp::String::`scalar deleting destructor'
std::_Destroy<Upp::String>(_Ptr=1041)
std::allocator<Upp::String>::destroy(_F
std::deque<Upp::String,std::allocator<
std::deque<Upp::String,std::allocator<

```

```

lea ecx,[ebp-0x4]
call 0x401ad2
mov eax,[ebp+0x8]
mov [ebp-0x8],eax
mov ecx,[ebp-0x8]
mov edx,[ebp-0xc]
mov eax,[edx+0x740]
mov [ecx],eax
mov ecx,[ebp-0xc]
mov edx,[ebp-0x8]
mov [ecx+0x740],edx
lea ecx,[ebp-0x4]

```

EAX	02DB0080	ESI
EBX	7FFDD000	EDI
ECX	02DB0080	EBP
EDX	00173E88	ESP

Autos Locals Watches Explorer Memory

0xca0

Upp::Heap::RemoteFree(ptr=2db0080)



f	2db0080->{ next=20 }
f->next	20->{ next=?? }
ptr	2db0080