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)

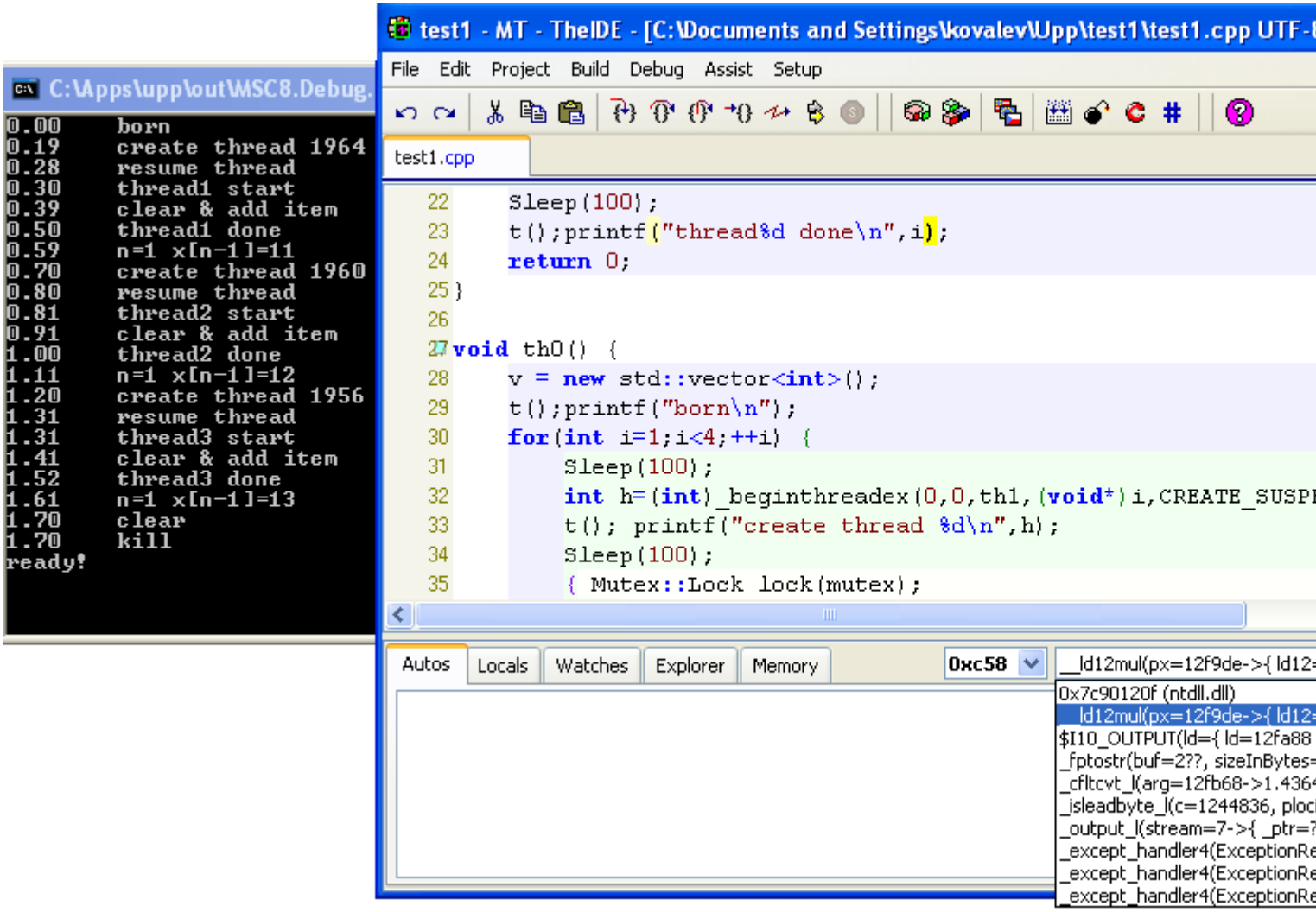
If I call th0(1) programm works fine.
But if argument th0(2) or more it will stop debugger in various places with out visible reason.
In real programm it cause unhandled exception when gui terminates or even fail on vector<>.clear inside GUI thread o_0.

hz1.png -- dubugger 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.

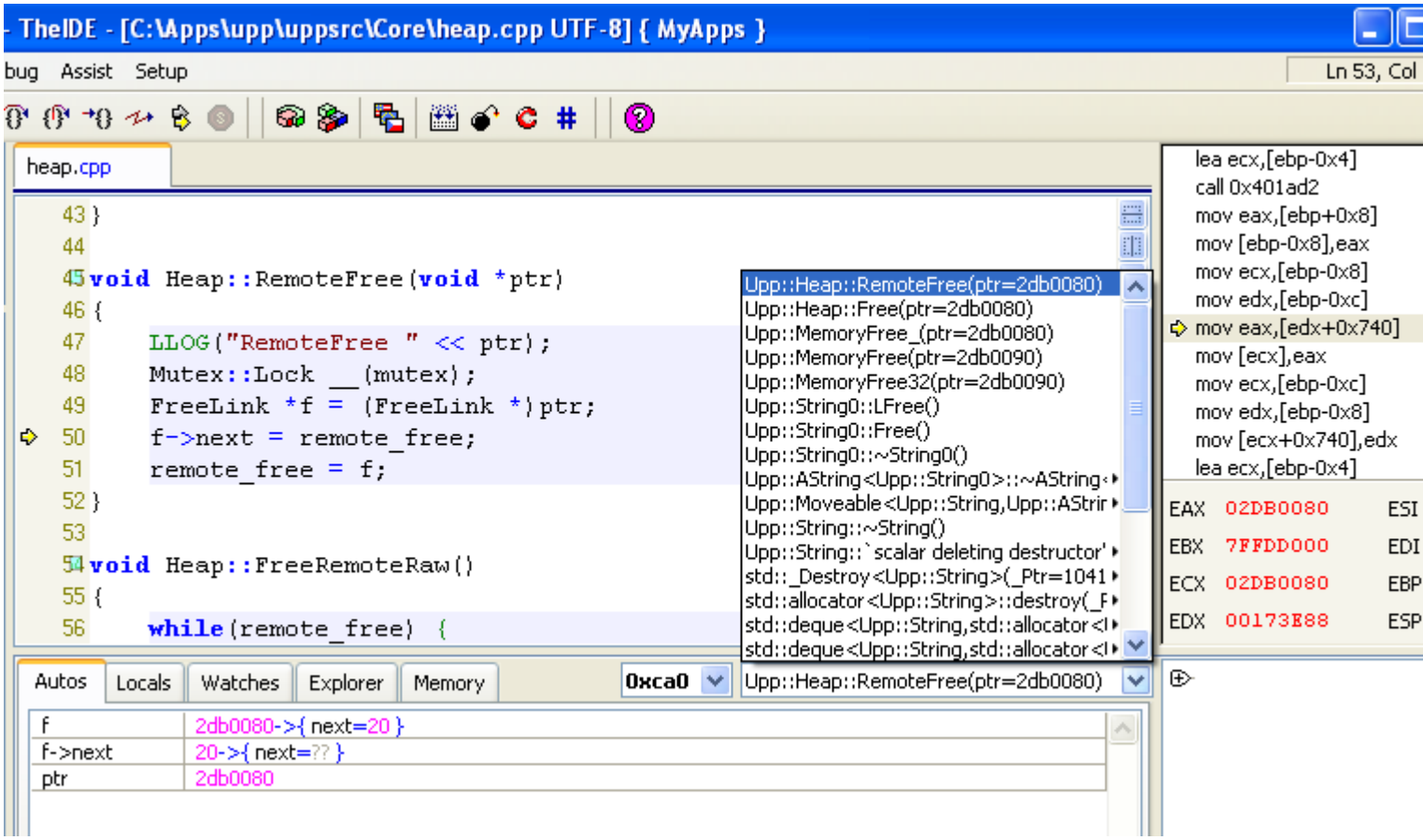
Upp version: SVN.643

File Attachments

1) test.cpp, downloaded 372 times
2) hz1.PNG, downloaded 441 times



3) hz2.PNG, downloaded 468 times


TheIDE - [C:\Apps\upp\uppsrc\Core\heap.cpp UTF-8] { MyApps }
bug Assist Setup
Ln 53, Col
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::AStrir
Upp::String::~String()
Upp::String::`scalar deleting destructor'
std::_Destroy<Upp::String>(_Ptr=1041
std::allocator<Upp::String>::destroy(_P
std::deque<Upp::String,std::allocator<I
std::deque<Upp::String,std::allocator<I
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