Subject: Re: Thread::ShutdownThreads not safe
Posted by tojocky on Sun, 13 Jun 2010 18:03:08 GMT
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luzr wrote on Sun, 13 June 2010 18:54hojtsy wrote on Sun, 13 June 2010 09:40Hi,

I think the implementation of Thread::ShutdownThreads() and Thread::IsShutdownThreads() is not thread-safe:

static Atomic sShutdown;

void Thread::ShutdownThreads()
{
 AtomicInc(sShutdown);
 while(sThreadCount)
  Sleep(100);
 AtomicDec(sShutdown);
}

bool Thread::IsShutdownThreads()
{
 return sShutdown;
}

I believe that the correct implementation would be:

static volatile Atomic sShutdown = 0;

void Thread::ShutdownThreads()
{
 AtomicInc(sShutdown);
 while(AtomicRead(sThreadCount))
  Sleep(100);
 AtomicDec(sShutdown);
}

bool Thread::IsShutdownThreads()
{
 return AtomicRead(sShutdown);
}

Could you please look into this, and fix if I am correct.
Thanks,
- Sandor

Well, yeah, adding volatile is definitely a good idea.. AtomicRead... in fact, all CPUs I have ever

studied have that equal to normal read (for Atomic values anyway), but I guess if we ever introduced it, we should be using it, right?

(Patch applied).

Mirek

Very nice observation!

Some time ago I had this issue and did not know what is the problem! My problem was, I try to shutdown thread and it is loop infinitely in some case.