
Subject: Re: Thread::ShutdownThreads not safe
Posted by [mirek](#) on Sun, 13 Jun 2010 15:54:59 GMT
[View Forum Message](#) <> [Reply to Message](#)

hojtsy 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
