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Subject: Why ReadWithBarrier returns bool (current svn)

Posted by [hans](#) on Tue, 06 May 2008 18:31:50 GMT

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Hi, we have

```
template <class U>
inline bool ReadWithBarrier(const volatile U& b)
{
    volatile bool tmp = b;
    ReadMemoryBarrier();
    return tmp;
}
```

but use it as it would return an int too, like in

```
inline int AtomicRead(const volatile Atomic& t)    { return ReadWithBarrier(t); }
```

So I would suggest to replace in ReadWithBarrier the bool with the U template parameter (in tmp var and return type).

Cheers, Hans.

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Subject: Re: Why ReadWithBarrier returns bool (current svn)

Posted by [mirek](#) on Tue, 06 May 2008 19:25:07 GMT

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hans wrote on Tue, 06 May 2008 14:31Hi, we have

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So I would suggest to replace in ReadWithBarrier the bool with the U template parameter (in tmp var and return type).

Cheers, Hans.

Yes, already done. You caught us in the process

BTW, final version removes second volatile too -> leads to more optimal but still correct code on both GCC and MSC (7.1, 8, 9).

Mirek

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Subject: Re: Why ReadWithBarrier returns bool (current svn)

Posted by [tojocky](#) on Thu, 17 Sep 2009 09:19:38 GMT

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Thanks for good implementation and documentation in memory barrier that increase performance of execution in multi-core processors.

Ion Lupascu (tojocky)

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