
Subject: Re: Simple class to handle variables used by different threads

Posted by [mirek](#) on Sun, 23 Aug 2015 18:34:24 GMT

[View Forum Message](#) <> [Reply to Message](#)

koldo wrote on Fri, 21 August 2015 13:41Hello all

I wanted to ask you if this class could serve to manage variables that may be read and changed from different threads

```
template <class T>
class threadSafe {
public:
    threadSafe() {}
    threadSafe(T v) {val = v;}
    void operator=(T v) {BarrierWrite(val, v);}
    operator T() {return ReadWithBarrier(val);}

```

```
private:
    volatile T val;
};
```

It can be used as simple as this:

```
threadSafe<int> val = 23;
double d = val + 3.5;
```

Other sample in two threads:

```
// Main thread
threadSafe<bool> thread1Busy;
```

```
// Thread 1
thread1Busy = true;
...
thread1Busy = false;
```

```
// Thread 2
...
while (thread1Busy)
    Sleep(100);
...
```

I would be quite worried about

```
threadSafe<int> x;
```

```
x = x + 1;
```

Also, I am not quite sure that barriers are used correctly here.. What are they supposed to do?

BTW, second example would work fine without any synchronization at all...

Mirek
