Subject: Re: Simple class to handle variables used by different threads
Posted by mirek on Sun, 23 Aug 2015 18:34:24 GMT
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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
