
Subject: Upp::Sort(begin, end, less) does not compile under MSC8 when less is a plain C function

Posted by [Didier](#) on Sat, 16 Oct 2010 10:35:26 GMT

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Hi all,

I stumbled accross an unexpected compile error that appears only when compiling with MSC8: no problem with GCC.

There is an easy workaround using a functor instead of a plain C compare function.

Is it an MSC8 limitation or a GCC added feature ?!?

Here is a sample code:

```
#include <Core/Core.h>
```

```
using namespace Upp;
```

```
typedef Pointf XY;
```

```
bool CompareXY_x(XY a, XY b)
{
    return (a.x < b.x);
}
```

```
struct MyLessFunctor {
    bool operator () (const XY& a, const XY& b) const
    {
        return CompareXY_x(a, b);
    }
};
```

```
CONSOLE_APP_MAIN
{
    typedef Vector<XY> PointsType;
```

```
    PointsType points;
```

```
    points << XY(1,2) << XY(2,2) << XY(3,2) << XY(4,2) << XY(6,2);
```

```
    Sort(points, CompareXY_x); // Compile on GCC only
    Sort(points, MyLessFunctor() );// compiles on GCC and MSC8
```

}

Subject: Re: Upp::Sort(begin, end, less) does not compile under MSC8 when less is a plain C function

Posted by [Didier](#) on Sat, 16 Oct 2010 11:02:11 GMT

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Besides this compile issue (which is not really an issue I think).

There is another problem: the sort algorithm is not completely exact:

```
while((count = (int)(end - begin)) > __SORT_THRESHOLD) {
```

The only test that is valid to do on iterators is:

```
iter1 != iter2 (and of course iter1 == iter2 )
```

The operation 'end - begin' on iterators is not generic: it may work for the Upp containers, but with others ?

Subject: Re: Upp::Sort(begin, end, less) does not compile under MSC8 when less is a plain C function

Posted by [mirek](#) on Sat, 16 Oct 2010 11:12:31 GMT

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Didier wrote on Sat, 16 October 2010 07:02

The only test that is valid to do on iterators is:

```
iter1 != iter2 (and of course iter1 == iter2 )
```

Incorrect.

Mirek

Subject: Re: Upp::Sort(begin, end, less) does not compile under MSC8 when less is a plain C function

Posted by [Didier](#) on Sat, 16 Oct 2010 13:13:13 GMT

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OK

I'm gonna refresh my knowledge
