

Exiv2 - Feature #556

timegm() function should work with Windows 64bit time_t

10 Jun 2008 20:04 - Andreas Huggel

Status:	Closed	Start date:	
Priority:	Normal	Due date:	
Assignee:		% Done:	100%
Category:	exif	Estimated time:	0.00 hour
Target version:	0.18.2		
Description			
In timegm.h, it defines <code>_USE_32BIT_TIME_T</code> because the comments say that the 64 bit <code>time_t</code> does not work:			
<pre>/* Visual Studio C++ 2005 (8.0) uses 64 bit time_t, which doesn't work */ #if defined _MSC_VER && _MSC_VER >= 1400 1. define _USE_32BIT_TIME_T #endif However, when performing a 64 bit build in Visual Studio 2008, crtdefs.h says that <code>_USE_32BIT_TIME_T</code> is not valid with WIN64: #ifndef _USE_32BIT_TIME_T #ifdef _WIN64 #error You cannot use 32-bit time_t (_USE_32BIT_TIME_T) with _WIN64 #undef _USE_32BIT_TIME_T #endif #endif</pre>			

Associated revisions

Revision 1800 - 18 May 2009 20:48 - Robin Mills

#556 timegm() function should work with Windows 64bit time_t

Fix submitted.

- 1) Removed `_USE_32BIT_TIME_T` from code base.
- 2) Added a macro to replace `timegm()` with `_mkgmtime()` on VC8+ (supports 32 and 64 bit `time_t`)

Simple test performed on VC 7.1/8 and 9 (VS 2003/05/08)

```
C:\gnu\exiv2\msvc\bin\Release>exiv2 -a 1:00:00 ad \R.tiff && exiv2 -pt \R.tiff | grep DateTimeOriginal  
Exif.Photo.DateTimeOriginal      Ascii   20 2009:04:26 10:38:18  
C:\gnu\exiv2\msvc\bin\Release>exiv2 -a 1:00:00 ad \R.tiff && exiv2 -pt \R.tiff | grep -i time  
Exif.Image.DateTimeOriginal      Ascii   20 2009:04:26 11:38:18  
C:\gnu\exiv2\msvc\bin\Release>
```

3) Cosmetic fix to `basicio.cpp`

Fixed nasty little `<tab>` I missed when I committed `basicio.cpp` on Sunday (apologies)

History

#1 - 11 Jun 2008 19:08 - Andreas Huggel

From Wade Peeler, `AccessData`:

MSVC has a similar function, but named differently: `_mkgmtime()`. It will adjust to the correct call depending on the build settings (`_mkgmtime32()` or `_mkgmtime64()`):

Converts a UTC time represented by a `tm` struct to a UTC time represented by a `time_t` type.

```
time_t _mkgmtime(  

```

```
struct tm* timeptr  
);
```

```
__time32_t _mkgmttime32(  
struct tm* timeptr  
);
```

```
__time64_t _mkgmttime64(  
struct tm* timeptr  
);
```

#2 - 17 Dec 2008 09:37 - Andreas Huggel

- *Target version set to 1.0*

#3 - 20 Jun 2009 08:33 - Andreas Huggel

- *Target version changed from 1.0 to 0.18.2*

- *% Done changed from 0 to 100*

#4 - 20 Jun 2009 19:43 - Andreas Huggel

- *Status changed from New to Resolved*

#5 - 24 Jun 2009 09:22 - Andreas Huggel

- *Status changed from Resolved to Closed*