
Subject: Getting timezone or UTC offset?

Posted by [jeremy_c](#) on Tue, 20 Oct 2009 14:37:19 GMT

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I am wondering about a U++ method to tell me the timezone offset or to get the time in UTC. I am thinking that it should be there but I'm just missing it somewhere.

Jeremy

Subject: Re: Getting timezone or UTC offset?

Posted by [mirek](#) on Wed, 21 Oct 2009 07:36:02 GMT

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jeremy_c wrote on Tue, 20 October 2009 10:37 I am wondering about a U++ method to tell me the timezone offset or to get the time in UTC. I am thinking that it should be there but I'm just missing it somewhere.

Jeremy

It is not there yet.

Mirek

Subject: Re: Getting timezone or UTC offset?

Posted by [jeremy_c](#) on Wed, 21 Oct 2009 16:35:24 GMT

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I have created GetUtcDate(), GetUtcTime(). I have not tested these functions on Linux, though. The Windows version works fine.

Would these be suitable for inclusion in U++?

Jeremy

File Attachments

1) [gmtime.diff](#), downloaded 349 times

Subject: Re: Getting timezone or UTC offset?

Posted by [mirek](#) on Wed, 21 Oct 2009 20:20:11 GMT

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jeremy_c wrote on Wed, 21 October 2009 12:35I have created GetUtcDate(), GetUtcTime(). I have not tested these functions on Linux, though. The Windows version works fine.

Would these be suitable for inclusion in U++?

Jeremy

Yes, but we need TESTED Linux version....

Mirek

Subject: Re: Getting timezone or UTC offset?
Posted by [jeremy_c](#) on Wed, 21 Oct 2009 21:16:09 GMT
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I was hoping you had access to a Linux install. I have Linux on a remote server, but no GUI interface nor U++ installed.

Jeremy

Subject: Re: Getting timezone or UTC offset?
Posted by [koldo](#) on Thu, 22 Oct 2009 06:17:57 GMT
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Hello Jeremy_c

I will try it.

Best regards
Koldo

Subject: Re: Getting timezone or UTC offset?
Posted by [koldo](#) on Thu, 22 Oct 2009 07:32:55 GMT
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Hello Jeremy_c

With an small change in GetUtcTime they work well. Here it is the changed version:

```
Time GetUtcTime() {  
    time_t gmt = time(NULL);
```

```
struct tm *utc = gmtime(&gmt);  
return Time(utc->tm_year + 1900, utc->tm_mon + 1, utc->tm_mday,  
    utc->tm_hour, utc->tm_min, utc->tm_sec);  
}
```

Best regards
Koldo

Subject: Re: Getting timezone or UTC offset?
Posted by [jeremy_c](#) on Thu, 22 Oct 2009 11:03:25 GMT
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Thanks koldo, luzr, can they be added now?

Jeremy

Subject: Re: Getting timezone or UTC offset?
Posted by [mirek](#) on Thu, 22 Oct 2009 14:55:03 GMT
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jeremy_c wrote on Thu, 22 October 2009 07:03Thanks koldo, luzr, can they be added now?

Jeremy

Yes!

Mirek

Subject: Re: Getting timezone or UTC offset?
Posted by [jeremy_c](#) on Thu, 22 Oct 2009 16:14:15 GMT
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Thanks. I knew it would need to be tested in Linux, I just didn't have that ability at this time (easily).

Jeremy

Subject: Re: Getting timezone or UTC offset?
Posted by [koldo](#) on Thu, 22 Oct 2009 23:32:37 GMT
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Hello Jeremy_c

Quote:Thanks. I knew it would need to be tested in Linux, I just didn't have that ability at this time (easily).

I have tried your code from a windows XP computer with Portable Ubuntu. Nothing installed, no partition, no Wubi, no switch off and on, just run it using windows programs at the same time.

Not very fast but everything works (but graphics acceleration). If you can I think it is a great idea.

Best regards
Koldo

Subject: Re: Getting timezone or UTC offset?
Posted by [jeremy_c](#) on Thu, 22 Oct 2009 23:37:29 GMT
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Thanks for the suggestion koldo, I'll do it. I use to live in Linux but I gave in to the constant need of Windows for my work. I got tired of switching back and forth :-/

Jeremy

Subject: Re: Getting timezone or UTC offset?
Posted by [Shire](#) on Sun, 10 Jan 2010 07:57:27 GMT
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IMHO, GetUTCTime() and GetSysTime() is not quite correct.

Better and correct name for GetSysTime is GetLocalTime.

GetUTCTime() works wrong with Time::AsFileTime() - if time will be not local, this method returns invalid file time.

One of workarounds of this problem is typedef int64 (or incapsulate it to struct) as UTC time offset type. GetUTCTime() will return this value, which can be converted to/from local Time by Time::Set()/Get() and will be good for time serialization to present same time in different time zones.

Subject: Re: Getting timezone or UTC offset?
Posted by [mirek](#) on Sat, 23 Jan 2010 19:32:22 GMT
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Shire wrote on Sun, 10 January 2010 02:57IMHO, GetUTCTime() and GetSysTime() is not quite correct.

Better and correct name for GetSysTime is GetLocalTime.

I agree, but 'Sys' has to stay - too many code written already.

Quote:

GetUTCTime() works wrong with Time::AsFileTime() - if time will be not local, this method returns invalid file time.

FileTime is always local.

But it looks like we should have some conversion functions, right?

Mirek

Subject: Re: Getting timezone or UTC offset?

Posted by [jeremy_c](#) on Sat, 23 Jan 2010 21:11:18 GMT

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luzr wrote on Sat, 23 January 2010 14:32Shire wrote on Sun, 10 January 2010 02:57IMHO, GetUTCTime() and GetSysTime() is not quite correct.

Better and correct name for GetSysTime is GetLocalTime.

I agree, but 'Sys' has to stay - too many code written already.

I wonder if GetLocalTime shouldn't be a define and from here on out encourage people to use GetLocalTime simply for clarity in their own apps.

Jeremy

Subject: Re: Getting timezone or UTC offset?

Posted by [mirek](#) on Sat, 23 Jan 2010 22:48:33 GMT

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jeremy_c wrote on Sat, 23 January 2010 16:11luzr wrote on Sat, 23 January 2010 14:32Shire wrote on Sun, 10 January 2010 02:57IMHO, GetUTCTime() and GetSysTime() is not quite correct.

Better and correct name for GetSysTime is GetLocalTime.

I agree, but 'Sys' has to stay - too many code written already.

I wonder if GetLocalTime shouldn't be a define and from here on out encourage people to use GetLocalTime simply for clarity in their own apps.

Jeremy

Does not need to be #define, Time GetLocalTime() { return GetSysTime(); } (or vice versa) would work as well.

Still, at this stage, IMO it is nitpicking. After all, you set your PC time in BIOS to your local time -> I would say system time is local then...

Mirek

Subject: Re: Getting timezone or UTC offset?
Posted by [Shire](#) on Sat, 30 Jan 2010 14:36:01 GMT
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[quote title=luzr wrote on Sun, 24 January 2010 00:32]Shire wrote on Sun, 10 January 2010 02:57
Quote:
GetUTCTime() works wrong with Time::AsFileTime() - if time will be not local, this method returns invalid file time.

FileTime is always local.

On Win32 it is not local:

MSDN FILETIME Structure

Quote:

FILETIME. Contains a 64-bit value representing the number of 100-nanosecond intervals since January 1, 1601 (UTC).

luzr wrote on Sun, 24 January 2010 00:32

But it looks like we should have some conversion functions, right?

Right.

Subject: Re: Getting timezone or UTC offset?

Posted by [mirek](#) on Sat, 30 Jan 2010 18:48:19 GMT

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Sorry, my info was incorrect. Correct description:

FileTime value is unspecified. Allowed operations are comparisons and conversion from/to Time.

When converted to Time, the result is local time.
