



TIME_ZONE_INFORMATION Structure

Specifies settings for a time zone.

Syntax

```
typedef struct _TIME_ZONE_INFORMATION {
    LONG Bias;
    WCHAR StandardName[32];
    SYSTEMTIME StandardDate;
    LONG StandardBias;
    WCHAR DaylightName[32];
    SYSTEMTIME DaylightDate;
    LONG DaylightBias;
} TIME_ZONE_INFORMATION,
*PTIME_ZONE_INFORMATION;
```

Members

Bias

The current bias for local time translation on this computer, in minutes. The bias is the difference, in minutes, between Coordinated Universal Time (UTC) and local time. All translations between UTC and local time are based on the following formula:

$$\text{UTC} = \text{local time} + \text{bias}$$

This member is required.

StandardName

A description for standard time. For example, "EST" could indicate Eastern Standard Time. The string will be returned unchanged by the [GetTimeZoneInformation](http://msdn.microsoft.com/en-us/library/ms724421(VS.85).aspx) [[http://msdn.microsoft.com/en-us/library/ms724421\(VS.85\).aspx](http://msdn.microsoft.com/en-us/library/ms724421(VS.85).aspx)] function. This string can be empty.

StandardDate

A [SYSTEMTIME](http://msdn.microsoft.com/en-us/library/ms724950(VS.85).aspx) [[http://msdn.microsoft.com/en-us/library/ms724950\(VS.85\).aspx](http://msdn.microsoft.com/en-us/library/ms724950(VS.85).aspx)] structure that contains a date and local time when the transition from daylight saving time to standard time occurs on this operating system. If the time zone does not support daylight saving time or if the caller needs to disable daylight saving time, the **wMonth** member in the **SYSTEMTIME** structure must be zero. If this date is specified, the **DaylightDate** member of this structure must also be specified. Otherwise, the system assumes the time zone data is invalid and no changes will be applied.

To select the correct day in the month, set the **wYear** member to zero, the **wHour** and **wMinute** members to the transition time, the **wDayOfWeek** member to the appropriate weekday, and the **wDay** member to indicate the occurrence of the day of the week within the month (1 to 5, where 5 indicates the final occurrence during the month if that day of the week does not occur 5 times).

Using this notation, specify 02:00 on the first Sunday in April as follows: **wHour** = 2, **wMonth** = 4, **wDayOfWeek** = 0, **wDay** = 1. Specify 02:00 on the last Thursday in October as follows: **wHour** = 2, **wMonth** = 10, **wDayOfWeek** = 4, **wDay** = 5.

If the **wYear** member is not zero, the transition date is absolute; it will only occur one time. Otherwise, it is a relative date that occurs yearly.

StandardBias

The bias value to be used during local time translations that occur during standard time. This member is ignored if a value for the **StandardDate** member is not supplied.

This value is added to the value of the **Bias** member to form the bias used during standard time. In most time zones, the value of this member is zero.

DaylightName

A description for daylight saving time. For example, "PDT" could indicate Pacific Daylight Time. The string will be returned unchanged by the [GetTimeZoneInformation](#) function. This string can be empty.

DaylightDate

A [SYSTEMTIME](http://msdn.microsoft.com/en-us/library/ms724950(VS.85).aspx) [[http://msdn.microsoft.com/en-us/library/ms724950\(VS.85\).aspx](http://msdn.microsoft.com/en-us/library/ms724950(VS.85).aspx)] structure that

contains a date and local time when the transition from standard time to daylight saving time occurs on this operating system. If the time zone does not support daylight saving time or if the caller needs to disable daylight saving time, the **wMonth** member in the **SYSTEMTIME** structure must be zero. If this date is specified, the **StandardDate** member in this structure must also be specified. Otherwise, the system assumes the time zone data is invalid and no changes will be applied.

To select the correct day in the month, set the **wYear** member to zero, the **wHour** and **wMinute** members to the transition time, the **wDayOfWeek** member to the appropriate weekday, and the **wDay** member to indicate the occurrence of the day of the week within the month (1 to 5, where 5 indicates the final occurrence during the month if that day of the week does not occur 5 times).

If the **wYear** member is not zero, the transition date is absolute; it will only occur one time. Otherwise, it is a relative date that occurs yearly.

DaylightBias

The bias value to be used during local time translations that occur during daylight saving time. This member is ignored if a value for the **DaylightDate** member is not supplied.

This value is added to the value of the **Bias** member to form the bias used during daylight saving time. In most time zones, the value of this member is -60.

Remarks

Settings for each time zone are stored in the following registry key:

```
HKEY_LOCAL_MACHINE
  SOFTWARE
    Microsoft
      Windows NT
        CurrentVersion
          Time Zones
            time_zone_name
```

Each time zone entry includes the following registry values.

Registry value	Type	Description
Display	REG_SZ	The display name.
Dlt	REG_SZ	The description for daylight time.
MUI_Display	REG_SZ	The display name as a string of the form <i>@path,-stringID[;comment]</i> . For more information, see MUI [http://msdn.microsoft.com/en-us/library/bb410861(VS.85).aspx] .
MUI_Dlt	REG_SZ	The description for daylight time as a string of the form <i>@path,-stringID[;comment]</i> .
MUI_Std	REG_SZ	The description for standard time as a string of the form <i>@path,-stringID[;comment]</i> .
Std	REG_SZ	The description for standard time.
TZI	REG_BINARY	The following time zone information. <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <pre>typedef struct _REG_TZI_FORMAT { LONG Bias; LONG StandardBias; LONG DaylightBias; SYSTEMTIME StandardDate; SYSTEMTIME DaylightDate; } REG_TZI_FORMAT;</pre> </div>

For more information about the **Dynamic DST** key, see [DYNAMIC_TIME_ZONE_INFORMATION](http://msdn.microsoft.com/en-us/library/ms724253(VS.85).aspx) [[http://msdn.microsoft.com/en-us/library/ms724253\(VS.85\).aspx](http://msdn.microsoft.com/en-us/library/ms724253(VS.85).aspx)] .

Examples

For an example, see [SetTimeZoneInformation](http://msdn.microsoft.com/en-us/library/ms724944(VS.85).aspx) [[http://msdn.microsoft.com/en-us/library/ms724944\(VS.85\).aspx](http://msdn.microsoft.com/en-us/library/ms724944(VS.85).aspx)] .

Requirements

Client	Requires Windows Vista, Windows XP, or Windows 2000 Professional.
Server	Requires Windows Server 2008, Windows Server 2003, or Windows 2000 Server.
Header	Declared in Winbase.h; include Windows.h.

See Also

[DYNAMIC_TIME_ZONE_INFORMATION](http://msdn.microsoft.com/en-us/library/ms724253(VS.85).aspx) [http://msdn.microsoft.com/en-us/library/ms724253(VS.85).aspx]
[GetTimeZoneInformation](http://msdn.microsoft.com/en-us/library/ms724421(VS.85).aspx) [http://msdn.microsoft.com/en-us/library/ms724421(VS.85).aspx]
[SetTimeZoneInformation](http://msdn.microsoft.com/en-us/library/ms724944(VS.85).aspx) [http://msdn.microsoft.com/en-us/library/ms724944(VS.85).aspx]
[SYSTEMTIME](http://msdn.microsoft.com/en-us/library/ms724950(VS.85).aspx) [http://msdn.microsoft.com/en-us/library/ms724950(VS.85).aspx]

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