

C LIBRARY FUNCTION - GMTIME

http://www.tutorialspoint.com/c_standard_library/c_function_gmtime.htm

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Description

The C library function **struct tm *gmtimeconsttime_t * timer** uses the value pointed by timer to fill a **tm** structure with the values that represent the corresponding time, expressed in Coordinated Universal Time *UTC* or GMT timezone.

Declaration

Following is the declaration for gmtime function.

```
struct tm *gmtime(const time_t *timer)
```

Parameters

- **timeptr** -- This is the pointer to a time_t value representing a calendar time.

Return Value

This function returns pointer to a tm structure with the time information filled in. Below is the detail of timeptr structure:

```
struct tm {
    int tm_sec;           /* seconds, range 0 to 59 */
    int tm_min;           /* minutes, range 0 to 59 */
    int tm_hour;          /* hours, range 0 to 23 */
    int tm_mday;          /* day of the month, range 1 to 31 */
    int tm_mon;           /* month, range 0 to 11 */
    int tm_year;          /* The number of years since 1900 */
    int tm_wday;          /* day of the week, range 0 to 6 */
    int tm_yday;          /* day in the year, range 0 to 365 */
    int tm_isdst;         /* daylight saving time */
};
```

Example

The following example shows the usage of gmtime function.

```
#include <stdio.h>
#include <time.h>

#define BST (+1)
#define CCT (+8)

int main ()
{
    time_t rawtime;
    struct tm *info;

    time(&rawtime);
    /* Get GMT time */
    info = gmtime(&rawtime );

    printf("Current world clock:\n");
    printf("London : %2d:%02d\n", (info->tm_hour+BST)%24, info->tm_min);
    printf("China : %2d:%02d\n", (info->tm_hour+CCT)%24, info->tm_min);

    return(0);
}
```

Let us compile and run the above program that will produce the following result:

Current world clock:

London : 14:10

China : 21:10

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