NAME

OPENSSL_gmtime, OPENSSL_gmtime_adj, OPENSSL_gmtime_diff - platform-agnostic OpenSSL time routines

SYNOPSIS

```
#include <openssl/crypto.h>

struct tm *OPENSSL_gmtime(const time_t *timer, struct tm *result);
int OPENSSL_gmtime_adj(struct tm *tm, int offset_day, long offset_sec);
int OPENSSL_gmtime_diff(int *pday, int *psec,
                        const struct tm *from, const struct tm *to);
```

DESCRIPTION

OPENSSL_gmtime() returns the UTC time specified by *timer* into the provided *result* argument.

OPENSSL_gmtime_adj() adds the offsets in *offset_day* and *offset_sec* to *tm*.

OPENSSL_gmtime_diff() calculates the difference between *from* and *to*.

NOTES

It is an error to call **OPENSSL_gmtime()** with *result* equal to NULL. The contents of the time_t given by *timer* are stored into the *result*. Calling with *timer* equal to NULL means use the current time.

OPENSSL_gmtime_adj() converts *tm* into a days and seconds value, adds the offsets, then converts back into a *struct tm* specified by *tm*. Leap seconds are not considered.

OPENSSL_gmtime_diff() calculates the difference between the two *struct tm* structures *from* and *to*. The difference in days is placed into **pday*, the remaining seconds are placed to **psec*. The value in **psec* will be less than the number of seconds per day (3600). Leap seconds are not considered.

RETURN VALUES

OPENSSL_gmtime() returns NULL on error, or *result* on success.

OPENSSL_gmtime_adj() and **OPENSSL_gmtime_diff()** return 0 on error, and 1 on success.

HISTORY

OPENSSL_gmtime(), **OPENSSL_gmtime_adj()** and **OPENSSL_gmtime_diff()** have been in OpenSSL since 1.0.0.

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