

NAME

X509_get0_notBefore, X509_getm_notBefore, X509_get0_notAfter, X509_getm_notAfter, X509_set1_notBefore, X509_set1_notAfter, X509_CRL_get0_lastUpdate, X509_CRL_get0_nextUpdate, X509_CRL_set1_lastUpdate, X509_CRL_set1_nextUpdate - get or set certificate or CRL dates

SYNOPSIS

```
#include <openssl/x509.h>
```

```
const ASN1_TIME *X509_get0_notBefore(const X509 *x);
```

```
const ASN1_TIME *X509_get0_notAfter(const X509 *x);
```

```
ASN1_TIME *X509_getm_notBefore(const X509 *x);
```

```
ASN1_TIME *X509_getm_notAfter(const X509 *x);
```

```
int X509_set1_notBefore(X509 *x, const ASN1_TIME *tm);
```

```
int X509_set1_notAfter(X509 *x, const ASN1_TIME *tm);
```

```
const ASN1_TIME *X509_CRL_get0_lastUpdate(const X509_CRL *crl);
```

```
const ASN1_TIME *X509_CRL_get0_nextUpdate(const X509_CRL *crl);
```

```
int X509_CRL_set1_lastUpdate(X509_CRL *x, const ASN1_TIME *tm);
```

```
int X509_CRL_set1_nextUpdate(X509_CRL *x, const ASN1_TIME *tm);
```

DESCRIPTION

X509_get0_notBefore() and **X509_get0_notAfter()** return the **notBefore** and **notAfter** fields of certificate **x** respectively. The value returned is an internal pointer which must not be freed up after the call.

X509_getm_notBefore() and **X509_getm_notAfter()** are similar to **X509_get0_notBefore()** and **X509_get0_notAfter()** except they return non-constant mutable references to the associated date field of the certificate.

X509_set1_notBefore() and **X509_set1_notAfter()** set the **notBefore** and **notAfter** fields of **x** to **tm**. Ownership of the passed parameter **tm** is not transferred by these functions so it must be freed up after the call.

X509_CRL_get0_lastUpdate() and **X509_CRL_get0_nextUpdate()** return the **lastUpdate** and **nextUpdate** fields of **crl**. The value returned is an internal pointer which must not be freed up after the call. If the **nextUpdate** field is absent from **crl** then **NULL** is returned.

X509_CRL_set1_lastUpdate() and **X509_CRL_set1_nextUpdate()** set the **lastUpdate** and **nextUpdate** fields of **crl** to **tm**. Ownership of the passed parameter **tm** is not transferred by these functions so it must be freed up after the call.

RETURN VALUES

X509_get0_notBefore(), **X509_get0_notAfter()** and **X509_CRL_get0_lastUpdate()** return a pointer to an **ASN1_TIME** structure.

X509_CRL_get0_lastUpdate() return a pointer to an **ASN1_TIME** structure or **NULL** if the **lastUpdate** field is absent.

X509_set1_notBefore(), **X509_set1_notAfter()**, **X509_CRL_set1_lastUpdate()** and **X509_CRL_set1_nextUpdate()** return 1 for success or 0 for failure.

SEE ALSO

d2i_X509(3), **ERR_get_error(3)**, **X509_CRL_get0_by_serial(3)**, **X509_get0_signature(3)**, **X509_get_ext_d2i(3)**, **X509_get_extension_flags(3)**, **X509_get_pubkey(3)**, **X509_get_subject_name(3)**, **X509_NAME_add_entry_by_txt(3)**, **X509_NAME_ENTRY_get_object(3)**, **X509_NAME_get_index_by_NID(3)**, **X509_NAME_print_ex(3)**, **X509_new(3)**, **X509_sign(3)**, **X509V3_get_d2i(3)**, **X509_verify_cert(3)**

HISTORY

These functions are available in all versions of OpenSSL.

X509_get_notBefore() and **X509_get_notAfter()** were deprecated in OpenSSL 1.1.0

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