

**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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