

**NAME**

X509\_get\_version, X509\_set\_version, X509\_REQ\_get\_version, X509\_REQ\_set\_version, X509\_CRL\_get\_version, X509\_CRL\_set\_version - get or set certificate, certificate request or CRL version

**SYNOPSIS**

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

```
long X509_get_version(const X509 *x);  
int X509_set_version(X509 *x, long version);
```

```
long X509_REQ_get_version(const X509_REQ *req);  
int X509_REQ_set_version(X509_REQ *x, long version);
```

```
long X509_CRL_get_version(const X509_CRL *crl);  
int X509_CRL_set_version(X509_CRL *x, long version);
```

**DESCRIPTION**

**X509\_get\_version()** returns the numerical value of the version field of certificate **x**. These correspond to the constants **X509\_VERSION\_1**, **X509\_VERSION\_2**, and **X509\_VERSION\_3**. Note: the values of these constants are defined by standards (X.509 et al) to be one less than the certificate version. So **X509\_VERSION\_3** has value 2 and **X509\_VERSION\_1** has value 0.

**X509\_set\_version()** sets the numerical value of the version field of certificate **x** to **version**.

Similarly **X509\_REQ\_get\_version()**, **X509\_REQ\_set\_version()**, **X509\_CRL\_get\_version()** and **X509\_CRL\_set\_version()** get and set the version number of certificate requests and CRLs. They use constants **X509\_REQ\_VERSION\_1**, **X509\_CRL\_VERSION\_1**, and **X509\_CRL\_VERSION\_2**.

**NOTES**

The version field of certificates, certificate requests and CRLs has a DEFAULT value of **v1(0)** meaning the field should be omitted for version 1. This is handled transparently by these functions.

**RETURN VALUES**

**X509\_get\_version()**, **X509\_REQ\_get\_version()** and **X509\_CRL\_get\_version()** return the numerical value of the version field.

**X509\_set\_version()**, **X509\_REQ\_set\_version()** and **X509\_CRL\_set\_version()** return 1 for success and 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**

**X509\_get\_version()**, **X509\_REQ\_get\_version()** and **X509\_CRL\_get\_version()** are functions in OpenSSL 1.1.0, in previous versions they were macros.

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