

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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