



Full credit is given to the above companies including the OS that this PDF file was generated!

Rocky Enterprise Linux 9.2 Manual Pages on command 'X509_NAME_hash_ex.3ossl'

\$ man X509_NAME_hash_ex.3ossl

X509_GET_SUBJECT_NAME(3ossl) OpenSSL X509_GET_SUBJECT_NAME(3ossl)

NAME

X509_NAME_hash_ex, X509_NAME_hash, X509_get_subject_name,
X509_set_subject_name, X509_subject_name_hash, X509_get_issuer_name,
X509_set_issuer_name, X509_issuer_name_hash, X509_REQ_get_subject_name,
X509_REQ_set_subject_name, X509_CRL_get_issuer,
X509_CRL_set_issuer_name - get X509_NAME hashes or get and set issuer
or subject names

SYNOPSIS

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

```
unsigned long X509_NAME_hash_ex(const X509_NAME *x, OSSL_LIB_CTX *libctx,  
                                const char *propq, int *ok);
```

```
X509_NAME *X509_get_subject_name(const X509 *x);
```

```
int X509_set_subject_name(X509 *x, const X509_NAME *name);
```

```
unsigned long X509_subject_name_hash(X509 *x);
```

```
X509_NAME *X509_get_issuer_name(const X509 *x);
```

```
int X509_set_issuer_name(X509 *x, const X509_NAME *name);
```

```
unsigned long X509_issuer_name_hash(X509 *x);
```

```
X509_NAME *X509_REQ_get_subject_name(const X509_REQ *req);
```

```
int X509_REQ_set_subject_name(X509_REQ *req, const X509_NAME *name);
```

```
X509_NAME *X509_CRL_get_issuer(const X509_CRL *crl);
```

```
int X509_CRL_set_issuer_name(X509_CRL *x, const X509_NAME *name);
```

The following macro has been deprecated since OpenSSL 3.0, and can be hidden entirely by defining `OPENSSL_API_COMPAT` with a suitable version value, see `openssl_user_macros(7)`:

```
#define X509_NAME_hash(x) X509_NAME_hash_ex(x, NULL, NULL, NULL)
```

DESCRIPTION

`X509_NAME_hash_ex()` returns a hash value of name `x` or 0 on failure, using any given library context `libctx` and property query `propq`. The `ok` result argument may be `NULL` or else is used to return 1 for success and 0 for failure. Failure may happen on malloc error or if no SHA1 implementation is available.

`X509_NAME_hash()` returns a hash value of name `x` or 0 on failure, using the default library context and default property query.

`X509_get_subject_name()` returns the subject name of certificate `x`. The returned value is an internal pointer which **MUST NOT** be freed.

`X509_set_subject_name()` sets the issuer name of certificate `x` to `name`.

The `name` parameter is copied internally and should be freed up when it

is no longer needed.

X509_subject_name_hash() returns a hash value of the subject name of certificate x.

X509_get_issuer_name(), X509_set_issuer_name(), and X509_issuer_name_hash() are identical to X509_get_subject_name(), X509_set_subject_name(), and X509_subject_name_hash() except they relate to the issuer name of x.

Similarly X509_REQ_get_subject_name(), X509_REQ_set_subject_name(), X509_CRL_get_issuer() and X509_CRL_set_issuer_name() get or set the subject or issuer names of certificate requests of CRLs respectively.

RETURN VALUES

X509_get_subject_name(), X509_get_issuer_name(), X509_REQ_get_subject_name() and X509_CRL_get_issuer() return an X509_NAME pointer.

X509_NAME_hash_ex(), X509_NAME_hash(), X509_subject_name_hash() and X509_issuer_name_hash() return the first four bytes of the SHA1 hash value, converted to unsigned long in little endian order, or 0 on failure.

X509_set_subject_name(), X509_set_issuer_name(), X509_REQ_set_subject_name() and X509_CRL_set_issuer_name() return 1 for success and 0 for failure.

BUGS

In case X509_NAME_hash(), X509_subject_name_hash(), or X509_issuer_name_hash() returns 0 it remains unclear if this is the real hash value or due to failure. Better use X509_NAME_hash_ex() instead.

SEE ALSO

d2i_X509(3), ERR_get_error(3), d2i_X509(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_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_REQ_get_subject_name() is a function in OpenSSL 1.1.0 and a macro in earlier versions.

X509_CRL_get_issuer() is a function in OpenSSL 1.1.0. It was previously added in OpenSSL 1.0.0 as a macro.

X509_NAME_hash() was turned into a macro and deprecated in OpenSSL 3.0.

COPYRIGHT

Copyright 2015-2021 The OpenSSL Project Authors. All Rights Reserved.

Licensed under the Apache License 2.0 (the "License"). You may not use this file except in compliance with the License. You can obtain a copy in the file LICENSE in the source distribution or at <https://www.openssl.org/source/license.html>.

3.0.7 2023-07-13 X509_GET_SUBJECT_NAME(3openssl)