

**NAME**

X509\_EXTENSION\_set\_object, X509\_EXTENSION\_set\_critical, X509\_EXTENSION\_set\_data,  
 X509\_EXTENSION\_create\_by\_NID, X509\_EXTENSION\_create\_by\_OBJ,  
 X509\_EXTENSION\_get\_object, X509\_EXTENSION\_get\_critical, X509\_EXTENSION\_get\_data -  
 extension utility functions

**SYNOPSIS**

```
int X509_EXTENSION_set_object(X509_EXTENSION *ex, const ASN1_OBJECT *obj);
int X509_EXTENSION_set_critical(X509_EXTENSION *ex, int crit);
int X509_EXTENSION_set_data(X509_EXTENSION *ex, ASN1_OCTET_STRING *data);
```

```
X509_EXTENSION *X509_EXTENSION_create_by_NID(X509_EXTENSION **ex,
      int nid, int crit,
      ASN1_OCTET_STRING *data);
```

```
X509_EXTENSION *X509_EXTENSION_create_by_OBJ(X509_EXTENSION **ex,
      const ASN1_OBJECT *obj, int crit,
      ASN1_OCTET_STRING *data);
```

```
ASN1_OBJECT *X509_EXTENSION_get_object(X509_EXTENSION *ex);
int X509_EXTENSION_get_critical(const X509_EXTENSION *ex);
ASN1_OCTET_STRING *X509_EXTENSION_get_data(X509_EXTENSION *ex);
```

**DESCRIPTION**

**X509\_EXTENSION\_set\_object()** sets the extension type of **ex** to **obj**. The **obj** pointer is duplicated internally so **obj** should be freed up after use.

**X509\_EXTENSION\_set\_critical()** sets the criticality of **ex** to **crit**. If **crit** is zero the extension is non-critical otherwise it is critical.

**X509\_EXTENSION\_set\_data()** sets the data in extension **ex** to **data**. The **data** pointer is duplicated internally.

**X509\_EXTENSION\_create\_by\_NID()** creates an extension of type **nid**, criticality **crit** using data **data**. The created extension is returned and written to **\*ex** reusing or allocating a new extension if necessary so **\*ex** should either be **NULL** or a valid **X509\_EXTENSION** structure it must **not** be an uninitialised pointer.

**X509\_EXTENSION\_create\_by\_OBJ()** is identical to **X509\_EXTENSION\_create\_by\_NID()** except it creates and extension using **obj** instead of a NID.

**X509\_EXTENSION\_get\_object()** returns the extension type of **ex** as an **ASN1\_OBJECT** pointer. The returned pointer is an internal value which must not be freed up.

**X509\_EXTENSION\_get\_critical()** returns the criticality of extension **ex** it returns **1** for critical and **0** for non-critical.

**X509\_EXTENSION\_get\_data()** returns the data of extension **ex**. The returned pointer is an internal value which must not be freed up.

## NOTES

These functions manipulate the contents of an extension directly. Most applications will want to parse or encode and add an extension: they should use the extension encode and decode functions instead such as **X509\_add1\_ext\_i2d()** and **X509\_get\_ext\_d2i()**.

The **data** associated with an extension is the extension encoding in an **ASN1\_OCTET\_STRING** structure.

## RETURN VALUES

**X509\_EXTENSION\_set\_object()** **X509\_EXTENSION\_set\_critical()** and **X509\_EXTENSION\_set\_data()** return **1** for success and **0** for failure.

**X509\_EXTENSION\_create\_by\_NID()** and **X509\_EXTENSION\_create\_by\_OBJ()** return an **X509\_EXTENSION** pointer or **NULL** if an error occurs.

**X509\_EXTENSION\_get\_object()** returns an **ASN1\_OBJECT** pointer.

**X509\_EXTENSION\_get\_critical()** returns **0** for non-critical and **1** for critical.

**X509\_EXTENSION\_get\_data()** returns an **ASN1\_OCTET\_STRING** pointer.

## SEE ALSO

**X509V3\_get\_d2i(3)**

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