

**NAME**

PKCS12\_SAFEBAG\_get0\_attr, PKCS12\_SAFEBAG\_get0\_type, PKCS12\_SAFEBAG\_get\_nid,  
 PKCS12\_SAFEBAG\_get\_bag\_nid, PKCS12\_SAFEBAG\_get0\_bag\_obj,  
 PKCS12\_SAFEBAG\_get0\_bag\_type, PKCS12\_SAFEBAG\_get1\_cert, PKCS12\_SAFEBAG\_get1\_crl,  
 PKCS12\_SAFEBAG\_get0\_safes, PKCS12\_SAFEBAG\_get0\_p8inf, PKCS12\_SAFEBAG\_get0\_pkcs8  
 - Get objects from a PKCS#12 safeBag

**SYNOPSIS**

```
#include <openssl/pkcs12.h>
```

```
const ASN1_TYPE *PKCS12_SAFEBAG_get0_attr(const PKCS12_SAFEBAG *bag,
                                           int attr_nid);
const ASN1_OBJECT *PKCS12_SAFEBAG_get0_type(const PKCS12_SAFEBAG *bag);
int PKCS12_SAFEBAG_get_nid(const PKCS12_SAFEBAG *bag);
int PKCS12_SAFEBAG_get_bag_nid(const PKCS12_SAFEBAG *bag);
const ASN1_TYPE *PKCS12_SAFEBAG_get0_bag_obj(const PKCS12_SAFEBAG *bag);
const ASN1_OBJECT *PKCS12_SAFEBAG_get0_bag_type(const PKCS12_SAFEBAG *bag);
X509 *PKCS12_SAFEBAG_get1_cert(const PKCS12_SAFEBAG *bag);
X509_CRL *PKCS12_SAFEBAG_get1_crl(const PKCS12_SAFEBAG *bag);
const STACK_OF(PKCS12_SAFEBAG) *PKCS12_SAFEBAG_get0_safes(const PKCS12_SAFEBAG *bag);
const PKCS8_PRIV_KEY_INFO *PKCS12_SAFEBAG_get0_p8inf(const PKCS12_SAFEBAG *bag);
const X509_SIG *PKCS12_SAFEBAG_get0_pkcs8(const PKCS12_SAFEBAG *bag);
```

**DESCRIPTION**

**PKCS12\_SAFEBAG\_get0\_attr()** gets the attribute value corresponding to the **attr\_nid**.

**PKCS12\_SAFEBAG\_get0\_type()** gets the **safeBag** type as an OID, whereas

**PKCS12\_SAFEBAG\_get\_nid()** gets the **safeBag** type as an NID, which could be **NID\_certBag**,

**NID\_crlBag**, **NID\_keyBag**, **NID\_secretBag**, **NID\_safeContentsBag** or **NID\_pkcs8ShroudedKeyBag**.

**PKCS12\_SAFEBAG\_get\_bag\_nid()** gets the type of the object contained within the

**PKCS12\_SAFEBAG**. This corresponds to the bag type for most bags, but can be arbitrary for **secretBags**. **PKCS12\_SAFEBAG\_get0\_bag\_type()** gets this type as an OID.

**PKCS12\_SAFEBAG\_get0\_bag\_obj()** retrieves the object contained within the **safeBag**.

**PKCS12\_SAFEBAG\_get1\_cert()** and **PKCS12\_SAFEBAG\_get1\_crl()** return new **X509** or **X509\_CRL** objects from the item in the **safeBag**.

**PKCS12\_SAFEBAG\_get0\_p8inf()** and **PKCS12\_SAFEBAG\_get0\_pkcs8()** return the PKCS8 object

from a PKCS8shroudedKeyBag or a keyBag.

**PKCS12\_SAFEBAG\_get0\_safes()** retrieves the set of **safeBags** contained within a safeContentsBag.

## RETURN VALUES

**PKCS12\_SAFEBAG\_get\_nid()** and **PKCS12\_SAFEBAG\_get\_bag\_nid()** return the NID of the safeBag or bag object, or -1 if there is no corresponding NID. Other functions return a valid object of the specified type or NULL if an error occurred.

## SEE ALSO

**PKCS12\_create(3)**, **PKCS12\_add\_safe(3)**, **PKCS12\_add\_safes(3)**

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