

NAME

PKCS8_pkey_get0_attrs, PKCS8_pkey_add1_attr, PKCS8_pkey_add1_attr_by_NID,
PKCS8_pkey_add1_attr_by_OBJ - PKCS8 attribute functions

SYNOPSIS

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

```
const STACK_OF(X509_ATTRIBUTE) *  
PKCS8_pkey_get0_attrs(const PKCS8_PRIV_KEY_INFO *p8);  
int PKCS8_pkey_add1_attr(PKCS8_PRIV_KEY_INFO *p8, X509_ATTRIBUTE *attr);  
int PKCS8_pkey_add1_attr_by_NID(PKCS8_PRIV_KEY_INFO *p8, int nid, int type,  
    const unsigned char *bytes, int len);  
int PKCS8_pkey_add1_attr_by_OBJ(PKCS8_PRIV_KEY_INFO *p8, const ASN1_OBJECT *obj,  
    int type, const unsigned char *bytes, int len);
```

DESCRIPTION

PKCS8_pkey_get0_attrs() returns a const STACK of X509_ATTRIBUTE present in the passed const PKCS8_PRIV_KEY_INFO structure **p8**.

PKCS8_pkey_add1_attr() adds a constructed X509_ATTRIBUTE **attr** to the existing PKCS8_PRIV_KEY_INFO structure **p8**.

PKCS8_pkey_add1_attr_by_NID() and **PKCS8_pkey_add1_attr_by_OBJ()** construct a new X509_ATTRIBUTE from the passed arguments and add it to the existing PKCS8_PRIV_KEY_INFO structure **p8**.

RETURN VALUES

PKCS8_pkey_add1_attr(), **PKCS8_pkey_add1_attr_by_NID()**, and **PKCS8_pkey_add1_attr_by_OBJ()** return 1 for success and 0 for failure.

NOTES

STACK of X509_ATTRIBUTE is present in many X509-related structures and some of them have the corresponding set of similar functions.

SEE ALSO

crypto(7)

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