

NAME

EVP_PKEY_asn1_find, EVP_PKEY_asn1_find_str, EVP_PKEY_asn1_get_count,
 EVP_PKEY_asn1_get0, EVP_PKEY_asn1_get0_info - enumerate public key ASN.1 methods

SYNOPSIS

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

```
int EVP_PKEY_asn1_get_count(void);
const EVP_PKEY_ASN1_METHOD *EVP_PKEY_asn1_get0(int idx);
const EVP_PKEY_ASN1_METHOD *EVP_PKEY_asn1_find(ENGINE **pe, int type);
const EVP_PKEY_ASN1_METHOD *EVP_PKEY_asn1_find_str(ENGINE **pe,
                                                    const char *str, int len);
int EVP_PKEY_asn1_get0_info(int *ppkey_id, int *pkey_base_id,
                           int *ppkey_flags, const char **pinfo,
                           const char **ppem_str,
                           const EVP_PKEY_ASN1_METHOD *ameth);
```

DESCRIPTION

EVP_PKEY_asn1_count() returns a count of the number of public key ASN.1 methods available: it includes standard methods and any methods added by the application.

EVP_PKEY_asn1_get0() returns the public key ASN.1 method **idx**. The value of **idx** must be between zero and **EVP_PKEY_asn1_get_count()** - 1.

EVP_PKEY_asn1_find() looks up the **EVP_PKEY_ASN1_METHOD** with NID **type**. If **pe** isn't **NULL**, then it will look up an engine implementing a **EVP_PKEY_ASN1_METHOD** for the NID **type** and return that instead, and also set ***pe** to point at the engine that implements it.

EVP_PKEY_asn1_find_str() looks up the **EVP_PKEY_ASN1_METHOD** with PEM type string **str**. Just like **EVP_PKEY_asn1_find()**, if **pe** isn't **NULL**, then it will look up an engine implementing a **EVP_PKEY_ASN1_METHOD** for the NID **type** and return that instead, and also set ***pe** to point at the engine that implements it.

EVP_PKEY_asn1_get0_info() returns the public key ID, base public key ID (both NIDs), any flags, the method description and PEM type string associated with the public key ASN.1 method ***ameth**.

EVP_PKEY_asn1_count(), **EVP_PKEY_asn1_get0()**, **EVP_PKEY_asn1_find()** and **EVP_PKEY_asn1_find_str()** are not thread safe, but as long as all **EVP_PKEY_ASN1_METHOD** objects are added before the application gets threaded, using them is safe. See **EVP_PKEY_asn1_add0(3)**.

RETURN VALUES

EVP_PKEY_asn1_count() returns the number of available public key methods.

EVP_PKEY_asn1_get0() return a public key method or **NULL** if **idx** is out of range.

EVP_PKEY_asn1_get0_info() returns 0 on failure, 1 on success.

SEE ALSO

EVP_PKEY_asn1_new(3), **EVP_PKEY_asn1_add0(3)**

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