

**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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