

NAME

EVP_PKEY_print_public, EVP_PKEY_print_private, EVP_PKEY_print_params,
EVP_PKEY_print_public_fp, EVP_PKEY_print_private_fp, EVP_PKEY_print_params_fp - public
key algorithm printing routines

SYNOPSIS

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

```
int EVP_PKEY_print_public(BIO *out, const EVP_PKEY *pkey,  
                          int indent, ASN1_PCTX *pctx);  
int EVP_PKEY_print_public_fp(FILE *fp, const EVP_PKEY *pkey,  
                             int indent, ASN1_PCTX *pctx);  
int EVP_PKEY_print_private(BIO *out, const EVP_PKEY *pkey,  
                           int indent, ASN1_PCTX *pctx);  
int EVP_PKEY_print_private_fp(FILE *fp, const EVP_PKEY *pkey,  
                              int indent, ASN1_PCTX *pctx);  
int EVP_PKEY_print_params(BIO *out, const EVP_PKEY *pkey,  
                          int indent, ASN1_PCTX *pctx);  
int EVP_PKEY_print_params_fp(FILE *fp, const EVP_PKEY *pkey,  
                             int indent, ASN1_PCTX *pctx);
```

DESCRIPTION

The functions **EVP_PKEY_print_public()**, **EVP_PKEY_print_private()** and **EVP_PKEY_print_params()** print out the public, private or parameter components of key *pkey* respectively. The key is sent to **BIO** *out* in human readable form. The parameter *indent* indicates how far the printout should be indented.

The *pctx* parameter allows the print output to be finely tuned by using ASN1 printing options. If *pctx* is set to NULL then default values will be used.

The functions **EVP_PKEY_print_public_fp()**, **EVP_PKEY_print_private_fp()** and **EVP_PKEY_print_params_fp()** do the same as the **BIO** based functions but use **FILE** *fp* instead.

NOTES

Currently no public key algorithms include any options in the *pctx* parameter.

If the key does not include all the components indicated by the function then only those contained in the key will be printed. For example passing a public key to **EVP_PKEY_print_private()** will only print the public components.

RETURN VALUES

These functions all return 1 for success and 0 or a negative value for failure. In particular a return value of -2 indicates the operation is not supported by the public key algorithm.

SEE ALSO

EVP_PKEY_CTX_new(3), **EVP_PKEY_keygen(3)**

HISTORY

The functions **EVP_PKEY_print_public()**, **EVP_PKEY_print_private()**, and **EVP_PKEY_print_params()** were added in OpenSSL 1.0.0.

The functions **EVP_PKEY_print_public_fp()**, **EVP_PKEY_print_private_fp()**, and **EVP_PKEY_print_params_fp()** were added in OpenSSL 3.0.

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