

## NAME

`EVP_PKEY_print_public`, `EVP_PKEY_print_private`, `EVP_PKEY_print_params` - 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_private(BIO *out, 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);
```

## 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** indicated 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.

## NOTES

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

These functions were first added to OpenSSL 1.0.0.