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## **Red Hat Enterprise Linux Release 9.2 Manual Pages on 'PKCS12\_add\_safe.3ossl' command**

**\$ man PKCS12\_add\_safe.3ossl**

PKCS12\_ADD\_SAFE(3ossl)      OpenSSL      PKCS12\_ADD\_SAFE(3ossl)

### NAME

PKCS12\_add\_safe, PKCS12\_add\_safe\_ex, PKCS12\_add\_safes,  
PKCS12\_add\_safes\_ex - Create and add objects to a PKCS#12 structure

### SYNOPSIS

```
#include <openssl/pkcs12.h>
```

```
int PKCS12_add_safe(STACK_OF(PKCS7) **psafes, STACK_OF(PKCS12_SAFEBAG) *bags,  
                  int safe_nid, int iter, const char *pass);
```

```
int PKCS12_add_safe_ex(STACK_OF(PKCS7) **psafes, STACK_OF(PKCS12_SAFEBAG) *bags,  
                      int safe_nid, int iter, const char *pass,  
                      OSSL_LIB_CTX *ctx, const char *propq);
```

```
PKCS12 *PKCS12_add_safes(STACK_OF(PKCS7) *safes, int p7_nid);
```

```
PKCS12 *PKCS12_add_safes_ex(STACK_OF(PKCS7) *safes, int p7_nid,  
                            OSSL_LIB_CTX *ctx, const char *propq);
```

### DESCRIPTION

PKCS12\_add\_safe() creates a new PKCS7 contentInfo containing the supplied PKCS12\_SAFEBAGs and adds this to a set of PKCS7 contentInfos.

Its type depends on the value of safe\_nid:

? If `safe_nid` is -1, a plain PKCS7 data `contentInfo` is created.

? If `safe_nid` is a valid PBE algorithm NID, a PKCS7 `encryptedData` `contentInfo` is created. The algorithm uses `pass` as the passphrase and `iter` as the iteration count. If `iter` is zero then a default value for iteration count of 2048 is used.

? If `safe_nid` is 0, a PKCS7 `encryptedData` `contentInfo` is created using a default encryption algorithm, currently `NID_pbe_WithSHA1And3_Key_TripleDES_CBC`.

`PKCS12_add_safe_ex()` is identical to `PKCS12_add_safe()` but allows for a library context `ctx` and property query `propq` to be used to select algorithm implementations.

`PKCS12_add_safes()` creates a PKCS12 structure containing the supplied set of PKCS7 `contentInfos`. The safes are enclosed first within a PKCS7 `contentInfo` of type `p7_nid`. Currently the only supported type is `NID_pkcs7_data`.

`PKCS12_add_safes_ex()` is identical to `PKCS12_add_safes()` but allows for a library context `ctx` and property query `propq` to be used to select algorithm implementations.

## NOTES

`PKCS12_add_safe()` makes assumptions regarding the encoding of the given pass phrase. See `passphrase-encoding(7)` for more information.

## RETURN VALUES

`PKCS12_add_safe()` returns a value of 1 indicating success or 0 for failure.

PKCS12\_add\_safes() returns a valid PKCS12 structure or NULL if an error occurred.

#### CONFORMING TO

IETF RFC 7292 (<<https://tools.ietf.org/html/rfc7292>>)

#### SEE ALSO

PKCS12\_create(3)

#### HISTORY

PKCS12\_add\_safe\_ex() and PKCS12\_add\_safes\_ex() were added in OpenSSL 3.0.

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