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## **Red Hat Enterprise Linux Release 9.2 Manual Pages on 'X509\_ALGOR\_dup.3ossl' command**

**\$ man X509\_ALGOR\_dup.3ossl**

X509\_ALGOR\_DUP(3ossl)          OpenSSL          X509\_ALGOR\_DUP(3ossl)

### NAME

X509\_ALGOR\_dup, X509\_ALGOR\_set0, X509\_ALGOR\_get0, X509\_ALGOR\_set\_md,  
X509\_ALGOR\_cmp, X509\_ALGOR\_copy - AlgorithmIdentifier functions

### SYNOPSIS

```
#include <openssl/x509.h>
```

```
X509_ALGOR *X509_ALGOR_dup(X509_ALGOR *alg);  
int X509_ALGOR_set0(X509_ALGOR *alg, ASN1_OBJECT *aobj, int ptype, void *pval);  
void X509_ALGOR_get0(const ASN1_OBJECT **paobj, int *pptype,  
                      const void **ppval, const X509_ALGOR *alg);  
void X509_ALGOR_set_md(X509_ALGOR *alg, const EVP_MD *md);  
int X509_ALGOR_cmp(const X509_ALGOR *a, const X509_ALGOR *b);  
int X509_ALGOR_copy(X509_ALGOR *dest, const X509_ALGOR *src);
```

### DESCRIPTION

X509\_ALGOR\_dup() returns a copy of alg.

X509\_ALGOR\_set0() sets the algorithm OID of alg to aobj and the associated parameter type to ptype with value pval. If ptype is

V\_ASN1\_UNDEF the parameter is omitted, otherwise ptype and pval have

the same meaning as the type and value parameters to ASN1\_TYPE\_set(). All the supplied parameters are used internally so must NOT be freed after this call.

X509\_ALGOR\_get0() is the inverse of X509\_ALGOR\_set0(): it returns the algorithm OID in \*paobj and the associated parameter in \*pptype and \*ppval from the AlgorithmIdentifier alg.

X509\_ALGOR\_set\_md() sets the AlgorithmIdentifier alg to appropriate values for the message digest md.

X509\_ALGOR\_cmp() compares a and b and returns 0 if they have identical encodings and nonzero otherwise.

X509\_ALGOR\_copy() copies the source values into the dest structs; making a duplicate of each (and free any thing pointed to from within \*dest).

## RETURN VALUES

X509\_ALGOR\_dup() returns a valid X509\_ALGOR structure or NULL if an error occurred.

X509\_ALGOR\_set0() and X509\_ALGOR\_copy() return 1 on success or 0 on error.

X509\_ALGOR\_get0() and X509\_ALGOR\_set\_md() return no values.

X509\_ALGOR\_cmp() returns 0 if the two parameters have identical encodings and nonzero otherwise.

## HISTORY

The X509\_ALGOR\_copy() was added in 1.1.1e.

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3.0.7                    2023-07-13            X509\_ALGOR\_DUP(3ossl)