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## **Red Hat Enterprise Linux Release 9.2 Manual Pages on 'OSSL\_PARAM\_free.3ossl' command**

**\$ man OSSL\_PARAM\_free.3ossl**

OSSL\_PARAM\_DUP(3ossl)      OpenSSL      OSSL\_PARAM\_DUP(3ossl)

### NAME

OSSL\_PARAM\_dup, OSSL\_PARAM\_merge, OSSL\_PARAM\_free - OSSL\_PARAM array copy functions

### SYNOPSIS

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

```
OSSL_PARAM *OSSL_PARAM_dup(const OSSL_PARAM *params);
```

```
OSSL_PARAM *OSSL_PARAM_merge(const OSSL_PARAM *params, const OSSL_PARAM *params1);
```

```
void OSSL_PARAM_free(OSSL_PARAM *params);
```

### DESCRIPTION

Algorithm parameters can be exported/imported from/to providers using arrays of OSSL\_PARAM. The following utility functions allow the parameters to be duplicated and merged with other OSSL\_PARAM to assist in this process.

OSSL\_PARAM\_dup() duplicates the parameter array params. This function does a deep copy of the data.

OSSL\_PARAM\_merge() merges the parameter arrays params and params1 into

a new parameter array. If `params` and `params1` contain values with the same 'key' then the value from `params1` will replace the param value. This function does a shallow copy of the parameters. Either `params` or `params1` may be NULL. The behaviour of the merge is unpredictable if `params` and `params1` contain the same key, and there are multiple entries within either array that have the same key.

`OSSL_PARAM_free()` frees the parameter array `params` that was created using `OSSL_PARAM_dup()`, `OSSL_PARAM_merge()` or `OSSL_PARAM_BLD_to_param()`.

## RETURN VALUES

The functions `OSSL_PARAM_dup()` and `OSSL_PARAM_merge()` return a newly allocated `OSSL_PARAM` array, or NULL if there was an error. If both parameters are NULL then NULL is returned.

## SEE ALSO

`OSSL_PARAM(3)`, `OSSL_PARAM_BLD(3)`

## HISTORY

The functions were added in OpenSSL 3.0.

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