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### ***Rocky Enterprise Linux 9.2 Manual Pages on command 'BN\_mul\_word.3ossl'***

***\$ man BN\_mul\_word.3ossl***

BN\_ADD\_WORD(3ossl)            OpenSSL            BN\_ADD\_WORD(3ossl)

#### NAME

BN\_add\_word, BN\_sub\_word, BN\_mul\_word, BN\_div\_word, BN\_mod\_word -  
arithmetic functions on BIGNUMs with integers

#### SYNOPSIS

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

```
int BN_add_word(BIGNUM *a, BN_ULONG w);
```

```
int BN_sub_word(BIGNUM *a, BN_ULONG w);
```

```
int BN_mul_word(BIGNUM *a, BN_ULONG w);
```

```
BN_ULONG BN_div_word(BIGNUM *a, BN_ULONG w);
```

```
BN_ULONG BN_mod_word(const BIGNUM *a, BN_ULONG w);
```

## DESCRIPTION

These functions perform arithmetic operations on BIGNUMs with unsigned integers. They are much more efficient than the normal BIGNUM arithmetic operations.

`BN_add_word()` adds `w` to `a` ("`a+=w`").

`BN_sub_word()` subtracts `w` from `a` ("`a-=w`").

`BN_mul_word()` multiplies `a` and `w` ("`a*=w`").

`BN_div_word()` divides `a` by `w` ("`a/=w`") and returns the remainder.

`BN_mod_word()` returns the remainder of `a` divided by `w` ("`a%w`").

For `BN_div_word()` and `BN_mod_word()`, `w` must not be 0.

## RETURN VALUES

`BN_add_word()`, `BN_sub_word()` and `BN_mul_word()` return 1 for success, 0 on error. The error codes can be obtained by `ERR_get_error(3)`.

`BN_mod_word()` and `BN_div_word()` return `a%w` on success and `(BN_ULONG)-1` if an error occurred.

## SEE ALSO

`ERR_get_error(3)`, `BN_add(3)`

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