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### ***Rocky Enterprise Linux 9.2 Manual Pages on command 'BIO\_set\_fd.3ossl'***

***\$ man BIO\_set\_fd.3ossl***

BIO\_S\_FD(3ossl)                      OpenSSL                      BIO\_S\_FD(3ossl)

NAME

BIO\_s\_fd, BIO\_set\_fd, BIO\_get\_fd, BIO\_new\_fd - file descriptor BIO

SYNOPSIS

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

const BIO_METHOD *BIO_s_fd(void);

int BIO_set_fd(BIO *b, int fd, int c);

int BIO_get_fd(BIO *b, int *c);

BIO *BIO_new_fd(int fd, int close_flag);
```

DESCRIPTION

BIO\_s\_fd() returns the file descriptor BIO method. This is a wrapper round the platforms file descriptor routines such as read() and write().

BIO\_read\_ex() and BIO\_write\_ex() read or write the underlying descriptor. BIO\_puts() is supported but BIO\_gets() is not.

If the close flag is set then close() is called on the underlying file descriptor when the BIO is freed.

BIO\_reset() attempts to change the file pointer to the start of file

such as by using `lseek(fd, 0, 0)`.

`BIO_seek()` sets the file pointer to position `ofs` from start of file

such as by using `lseek(fd, ofs, 0)`.

`BIO_tell()` returns the current file position such as by calling

`lseek(fd, 0, 1)`.

`BIO_set_fd()` sets the file descriptor of BIO `b` to `fd` and the close flag to `c`.

`BIO_get_fd()` places the file descriptor of BIO `b` in `c` if it is not NULL. It also returns the file descriptor.

`BIO_new_fd()` returns a file descriptor BIO using `fd` and `close_flag`.

## NOTES

The behaviour of `BIO_read_ex()` and `BIO_write_ex()` depends on the behavior of the platforms `read()` and `write()` calls on the descriptor.

If the underlying file descriptor is in a non blocking mode then the BIO will behave in the manner described in the `BIO_read_ex(3)` and `BIO_should_retry(3)` manual pages.

File descriptor BIOs should not be used for socket I/O. Use socket BIOs instead.

`BIO_set_fd()` and `BIO_get_fd()` are implemented as macros.

## RETURN VALUES

`BIO_s_fd()` returns the file descriptor BIO method.

`BIO_set_fd()` returns 1 on success or  $\leq 0$  for failure.

`BIO_get_fd()` returns the file descriptor or -1 if the BIO has not been initialized. It also returns zero and negative values if other error occurs.

`BIO_new_fd()` returns the newly allocated BIO or NULL is an error occurred.

## EXAMPLES

This is a file descriptor BIO version of "Hello World":

```
BIO *out;
out = BIO_new_fd(fileno(stdout), BIO_NOCLOSE);
BIO_printf(out, "Hello World\n");
BIO_free(out);
```

## SEE ALSO

BIO\_seek(3), BIO\_tell(3), BIO\_reset(3), BIO\_read\_ex(3),  
BIO\_write\_ex(3), BIO\_puts(3), BIO\_gets(3), BIO\_printf(3),  
BIO\_set\_close(3), BIO\_get\_close(3)

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3.0.7                    2023-07-13                    BIO\_S\_FD(3ossl)